



# QUICK CONNECT COUPLINGS

Full Line Catalog



*Tuthill Coupling*  
Group | HANSEN™  
QUICK SEAL®  
COUPLEURS GROMELLE™



Berea, Ohio, USA



Annemasse, Haute-Savoie, France





### A Letter from the President

The success of **Tuthill Coupling Group** has been built upon a commitment to listen to and understand our customers, from the invention of the Hansen Coupling in 1915 to the present. Achieving clarity of our customers' values allows us to provide the best coupling solutions, while staying true to our heritage of the highest quality products and personalized service.

Even more, our passion for Continuous Improvement challenges us to never be satisfied and constantly strive to change for the better. Our Improvement Engine is powered by our employees; making a stand for their greatness and calling them forth to their potential is the heart of our Conscious Company philosophy. We diligently invest in our future through Radical Leadership training for every employee throughout the organization. This investment results in quicker and more creative solutions within our business processes and for our customers. While Tuthill's Vision is to build a great company, we also want our employees to have a seismic impact on our world.

Our personal approach of having employees available to gladly serve our customers and answer any question still remains a key part of our culture.  
Thank you for trusting us with your business.

Sincerely,

Brett Jaffe  
President, Tuthill Coupling Group

**Tuthill Coupling Group** | **HANSEN™**  
**QUICK SEAL®**  
**COUPLEURS GROMELLE™**

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# How To Build A Socket Part Number

**Notes:**

- 1) Some part numbers may be subject to minimum order quantities.
- 2) Options shown are not available for all parts and may only be available by quotation. Consult your local distributor.

**EXAMPLE:**

**4HP26 – BV – SL – 143 – OC**

**Standard part number from table listing.**

**Valve Material:**  
**BV – Brass Valve**  
**LLV – 303 Stainless Steel**

**SL – Sleeve Lock**

**OC – Oxygen Clean**

**Seal Material\*:**  
**138 – Silicone**  
**143 – Fluorocarbon**  
**192 – EPDM**  
**115 – PTFE**  
**118 – Neoprene**

\* See page 82 for full list, description and suggested uses for seal materials.

## CLEANING AND LUBRICATION PROCESS FOR GASEOUS OR LIQUID OXYGEN SERVICE

<<< Part numbers cleaned for oxygen service should be denoted with an "OC" suffix >>>

This cleaning process applies to new and unused brass or stainless steel parts for 3000 psig (207 Bar) max gaseous or liquid oxygen service or aluminum parts for 150 psig (10 Bar) max gaseous or liquid oxygen service. It is based upon the recommended practices in ASTM G93 and CGA G-4.1 for cleaning, drying, inspection and packaging of materials and equipment intended for service in an oxygen-enriched environment. A copy of Tuthill Coupling Group's cleaning procedure for oxygen service may be obtained by contacting [www.tuthill.com\oxygen\\_clean](http://www.tuthill.com/oxygen_clean).

### **WARNING**

Over-pressurization could result in a sudden failure of the coupling causing severe bodily injury or death. Be sure to select the proper coupling for your application and use it only within the specified service pressure range.

### **WARNING**

Couplings do wear out. In order to avoid severe bodily injury or death, couplings must be routinely checked for condition and replaced if necessary.

# *The Building Blocks of a Successful Partnership... with TUTHILL COUPLING GROUP*



## Customer Support

### Catalog

- New, easy-to-read format
- New products
- Same comprehensive technical data

### Website

- Fully searchable online catalog
- Product data sheets for download
- Market information
- Application Resource Tool (ART)

### Training

- Product demonstration videos
- General coupling information
- Online Distributor Training Center

### Customer Service

- Dedicated Customer Service Representatives available Monday-Friday 8:00-5:00 EST

### Technical Support

- Engineering Representatives answer technical product questions Monday-Friday 8:00-5:00 EST

## P

roduct Innovation

Tuthill is leading the industry with our latest development, the CC Series pneumatic coupling. Exciting features include: >>> Check out the CC Series on page 35 for more info!

- Safety
- High Flow
- Durability
- Flexibility
- Lightweight

## E

xpanded Product Offering

Tuthill Coupling Group is proud to offer a full line of leak testing and filling connectors! Check out information on our new **QUICK SEAL®** brand of products on the next page or see our full **QUICK SEAL** catalog!



## D

edicated Employees

Our staff is dedicated to providing top of the line service to our customers everyday. Tuthill is proud to boast a staff with a combined 1,500+ years of service! That's an average of 12+ years per employee!

## Marketing Reference Guide



Tuthill Coupling Group is Proud to Hold the Following Certifications:

ISO 9001:2000



Certificate No. 006888

**CRN** CANADIAN  
REGISTRATION  
NUMBER

Tuthill Coupling Group is CRN certified for all non-nuclear applications in all of the Canadian provinces. Ontario Regulation 220/01 for Boilers and Pressure Vessels in Paragraph 4, states requirements for Design Registration. Tuthill Coupling Group is the only coupling manufacturer that has achieved this registration. Our CRN is OA11599.5C and our approval is valid until 2017.

### PROUD MEMBERS OF:



**NFPA**

Solutions through motion technology



# QUICK SEAL®



## APPLICATIONS:

- PUMPS
- VALVES
- CASTINGS
- AIR CONDITIONING
- REFRIGERATION EQUIPMENT
- BEVERAGE DISPENSERS
- ICE MACHINES
- DRINKING FOUNTAINS
- WATER HEATERS
- FURNACES
- GAS STOVES
- GAS TANKS
- ENGINE BLOCKS
- MUFFLERS
- OIL SYSTEMS

FOR MORE DETAILS, CHECK OUT OUR  
FULL LINE QUICK SEAL® CATALOG.  
REQUEST CATALOG NUMBER QS-1207.

## Leak Testing And Filling Connectors

### QUICK SEAL® products

are used for connecting vacuum and pressure lines to tubing for pressure testing, vacuum dehydrating, charging and other applications requiring a quick, leak-free connection. Since 1962, QUICK SEAL has been an industry leader in providing leak test plugs and filling connectors that have been recognized for their superior quality.



*PR tube connectors in use for refrigeration testing and filling.*



*Expanding seal filling connector shown servicing an automotive radiator.*

### Basic Sealing Methods



#### End Seal - Seals on End of Tube

- Inexpensive general purpose leak testing.
- For air, water, refrigerant.



#### Inside Diameter (I.D.) Seal

- Works well with all test media including helium, air, and most refrigerants and gases.
- Seals in area where tube manufacturers hold their closest tolerances - assures a consistent tight fit. (except SBP)
- Seals on smooth area - provides longer seal life. (except SBP)
- I.D. sealing usually done with inexpensive, easy to replace o-rings.



#### Outside Diameter (O.D.) Seal

- Full flow, minimal restrictions.
- Seals on smooth surface.
- Seals have minimal exposure to test medium, last longer in hazardous duty.
- Seals are larger and longer for better sealing.



*E self-sealing filling connector used in a pressure vessel.*



*CV and XCV are used for gas appliances.*



# ONE-WAY



# Contents and Selector Chart



Coupling Series	Page	Coupling Style			Interchange			Body Size			Body Material			Locking Mechanism			Options									
		MANUAL CONNECT	PUSH-TO-CONNECT	SAFETY COUPLING	INDUSTRIAL INTERCHANGE	ARO 210/310	TRU-FLATE	CEJN 320/RECTUS 25	HANSEN UNIQUE DESIGN	1/8 INCH	1/4 INCH	3/8 INCH	1/2 INCH	3/4 INCH	ALUMINUM	BRASS	STEEL (Zinc/chromate Finish)	STAINLESS STEEL	PLASTIC (Acetal)	BALL LOCK	PIN LOCK	RING LOCK	PLASTIC FINGERS	SLEEVE LOCK	SEAL MATERIALS (Various)	DUST CAP (Vinyl)
CC	13	●	●	●	●	●	●	●		●					●	◆							▼			
1000	15	●			●					●					●	●	●	●		●				●	●	●
400	16	●			●		●					●				●	●	●	●		●			●	●	●
500	17	●			●								●		●		●	●	●		●			●	●	●
3000	19		●		●						●					●		●			●			●	●	●
4000	20		●		●							●				●		●			●			●	●	●
5000	21		●		●								●		●		●		●		●			●	●	●
6000	22		●		●								●		●		●		●		●			●	●	●
P-30	23		●		●						●							●						●		
P-40	23		●		●							●						●						●		
Auto-Flo 23	25		●	●	●	●	●	●			●					●				●						
Auto-Flo 24	26		●	●				●			●					●		●		●						
Safeline	27		●	●	●						●					●	●			●						
180/280	29	●							●	●						●				●					●	
100	31	●								●		●				●		●		●					●	●
600/700	33/34	●								●		●				●				●					●	●
2-RL	36		●							●		●					●			●				●	▼	●
3-RL	37		●							●		●				●		●		●				●	▼	●
Full-Bore	39		●	●	●		●						●		●		●		●		●			●	▼	
210	41		●				●				●					●		●		●			●			
310	41		●				●					●				●		●		●			●			
MS	43		●				●					●				●		●		●			●			

▼ Sleeve lock is standard

◆ Polymer Sleeves

ONE-WAY

TWO-WAY

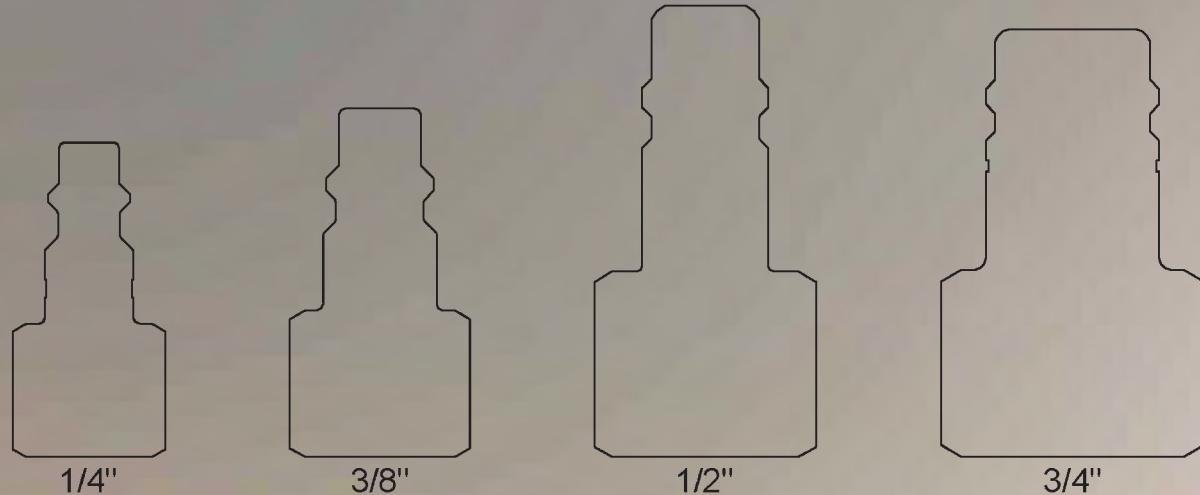
STRAIGHT-THRU

GAS

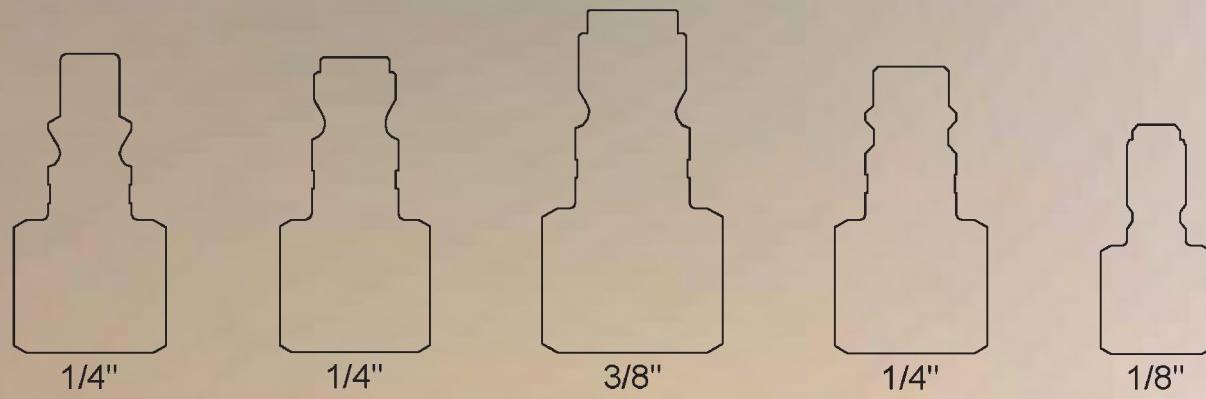
ACCESSORIES

# Interchange Chart

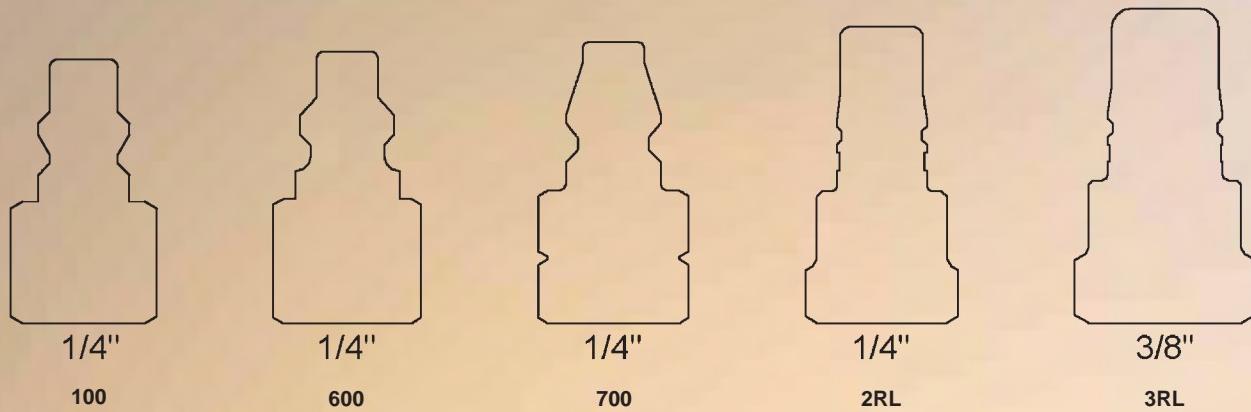
The plug profiles shown below are actual size. This chart can be used to help select Tuthill one-way couplings. The bottom row of this chart shows unique Tuthill plug designs.



Industrial Interchange



ARO 210      Tru-Flate      Tru-Flate      Auto-Flo 24      180/280



100      600      700      2RL      3RL



2CC Series

24CC Series

**The CC Series** provides unrestricted air flow, safety, efficiency and extreme durability all in one pneumatic coupling.

## FEATURES

- Two-sleeve activation for safety
- Exceeds stringent cycle testing requirements without leakage
- Withstands 4,500 pounds of external force without cracking
- The safe choice for your employees due to safety venting that prevents hose whip
- Helps prevent scratches on finished product surfaces
- Does not noticeably increase the weight of the tool when attached, which helps prevent user strain and fatigue, increasing workplace productivity
- The socket can accept multiple plug configurations, making it extremely flexible

## APPLICATIONS & MARKETS

- Air Tools
- General Pneumatics

### Rated Pressure

Part Number	Body Size	Thread Size	Rated Air Flow	Interchanges
2CC25F	1/4"	1/4" Female NPT	34 SCFM	Industrial, ARO 210, Tru-Flate
2CC37F	1/4"	3/8" Female NPT	34 SCFM	Industrial, ARO 210, Tru-Flate
24CC25F	1/4"	1/4" Female NPT	53 SCFM	CEJN 320, Rectus 25
24CC37F	1/4"	3/8" Female NPT	53 SCFM	CEJN 320, Rectus 25
24CC25FBS	1/4"	1/4" Female BSPP	53 SCFM	CEJN 320, Rectus 25



### Interchangeability

2CC	24CC
Industrial	CEJN 320
ARO 210	RECTUS 25
Tru-Flate	



### Materials

- Non-marring polymer sleeves and rounded ends
- Nickel plated brass and crush resistant polymer



### 1/4" nominal (6.35 mm)



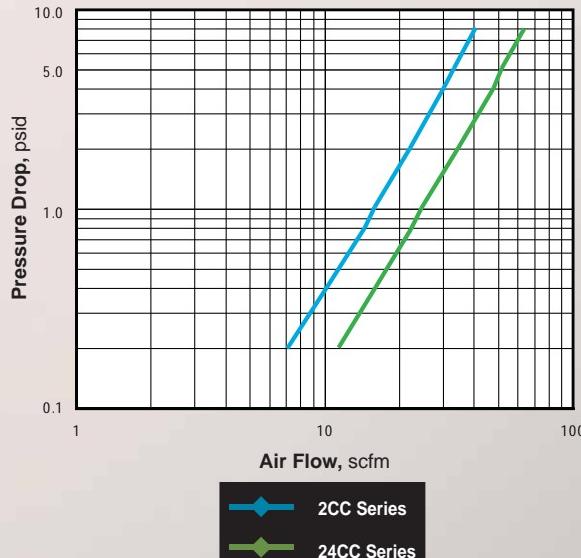
### Rated Pressure

Series	PSI	BAR
2CC	250	17
24CC	250	17



### Flow Capacity

PRESSURE DROP VS. AIR FLOW  
(100 psig inlet pressure)



\*scfm: Standard Cubic Feet per Minute

CHECK OUT OUR VIDEO DEMONSTRATING THE DURABILITY OF THE CC COUPLING. VISIT [WWW.TUTHILL.COM](http://WWW.TUTHILL.COM).



# SERIES 1000/400/500



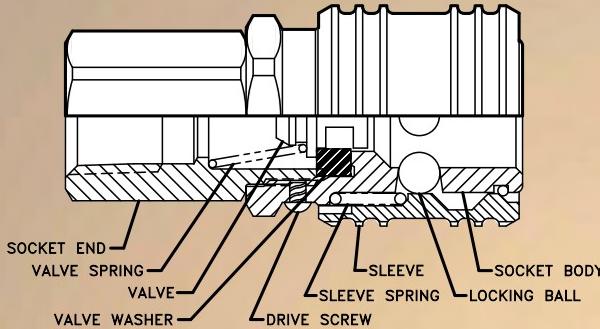
**Industrial Interchange Ball Lock** quick connect couplings are designed for compressed air, gases, and liquids. Body sizes are 1/4", 3/8" and 1/2".

## FEATURES

- Ball lock
- Manual operation
- Rugged, reliable
- All sizes accept US Industrial Interchange; 1/4" and 1/2" also accept ISO 1650 Series B and A-A-59439 (former MIL-C-4109) plugs
- Optional sleeve lock prevents accidental disconnection
- Optional seal and valve materials available
- Series 1000 socket available in stainless steel
- Series 400 sockets accept Tru-Flate Interchange plugs and Industrial Interchange plugs

## APPLICATIONS & MARKETS

- General Pneumatics
- Construction
- Industrial Plants
- Fluid Transfer



Shown with optional sleeve lock

### Interchangeability

All Sizes	1/4" & 1/2"	400 Series
US Industrial Interchange	ISO 6150 Series B A-A-59439 (former MIL-C-4109)	Tru-Flate

### Materials

Socket:

- Brass Body
- Nickel Plated Steel Sleeve
- Zinc Plated Steel Valve
- Buna-N (Nitrile) Seal
- Stainless Steel Springs
- Stainless Steel Locking Balls

Plug:

- Zinc Plated Case-Hardened Steel
- Brass
- Stainless Steel (1/4" size)



**1/4" to 1/2" nominal (6.35 mm to 12.7 mm)**



**-40° F to 250° F  
-40° C to 120° C**



### Rated Pressure

Series	Size	PSI	BAR
1000	1/4"	2,000	138
400	3/8"	1,000	69
500	1/2"	500	35

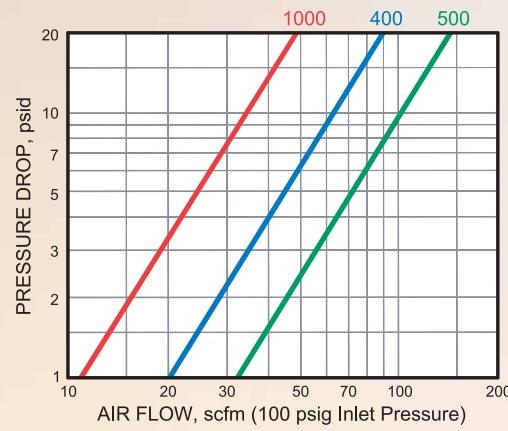
**NOTE:**  
Series 400 operating pressure is 150 psi when connected to Tru-Flate Interchange plug.



### Flow Capacity

Series	†Ac
1000	24
400	45
500	72

† Air flow (scfm)  
with 5 psi pressure drop and 100 psig inlet pressure.





1/4" Nominal

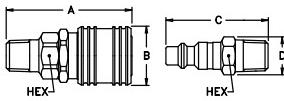
Tuthill

## 1000 SERIES

## SOCKETS

Part No.	Thread Size	Dimensions		
		A	B	HEX
900	1/8-27 NPTF	1.97	1.00	0.69
1100	1/4-18 NPTF	2.16	1.00	0.69
1300	3/8-18 NPTF	2.12	1.00	0.69
1000-63*	5/8-18	2.19	1.00	0.69
<b>Stainless</b>				
LL-1100	1/4-18 NPTF	2.16	1.00	0.69

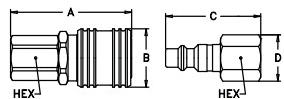
## Male End Connections



## PLUGS

Part No.	Thread Size	Dimensions		
		C	D	HEX
10	1/4-18 NPTF	1.75	0.65	0.56
10C§	1/4-18 NPTF	1.75	0.65	0.56
10G†	1/4-18 NPTF	1.75	0.65	0.56
12	1/8-27 NPTF	1.59	0.58	0.50
12G†	1/8-27 NPTF	2.38	0.77	0.69
14	3/8-18 NPTF	1.75	0.79	0.69
14G†	3/8-18 NPTF	2.53	0.77	0.69
<b>Brass</b>				
B-10	1/4-18 NPTF	1.75	0.64	0.56
<b>Stainless</b>				
LL-10	1/4-18 NPTF	1.75	0.65	0.56

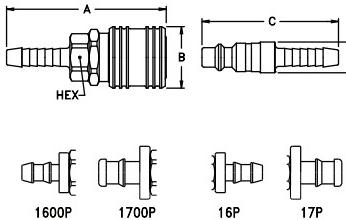
## Female End Connections



## Dimensions

Part No.	Thread Size	Dimensions		
		C	D	HEX
11	1/4-18 NPTF	1.63	0.79	0.69
11G†	1/4-18 NPTF	2.44	0.77	0.69
13	1/8-27 NPTF	1.47	0.65	0.56
15	3/8-18 NPTF	1.69	0.94	0.81
15G†	3/8-18 NPTF	2.50	0.84	0.75
<b>Brass</b>				
11B	1/4-18 NPTF	1.63	0.78	0.69
<b>Stainless</b>				
LL-11	1/4-18 NPTF	1.63	0.79	0.69

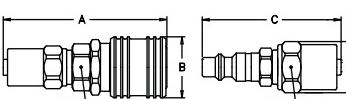
## Hose Stem End Connections



## Dimensions

Part No.	Hose I.D.	Dimensions	
		C	D
1600	1/4"	2.60	1.00
1600P‡	1/4"	2.37	1.00
1700	3/8"	2.60	1.00
1700P‡	3/8"	2.44	1.00
1800	5/16"	2.60	1.00
<b>Brass</b>			
B-17	3/8"	2.22	0.50

## Hose Clamp End Connections



## Dimensions

Part No.	Hose	Dimensions			
		C	D	HEX	
3-PA0	3/16"	7/16"	2.25	0.63	0.56
3-PA3	3/16"	1/2"	2.25	0.70	0.63
3-PB1	1/4"	15/32"	2.31	0.70	0.63
3-PB3	1/4"	1/2"	2.31	0.70	0.63
3-PB5	1/4"	9/16"	2.31	0.77	0.69
3-PB7	1/4"	5/8"	2.31	0.84	0.75
3-PB9	1/4"	11/16"	2.31	0.91	0.81
3-PB11	1/4"	3/4"	2.31	0.98	0.88
3-PC5	5/16"	9/16"	2.38	0.77	0.69
3-PC7	5/16"	5/8"	2.38	0.84	0.75
3-PC9	5/16"	11/16"	2.38	0.91	0.81
3-PD5	3/8"	9/16"	2.44	0.77	0.69
3-PD7	3/8"	5/8"	2.44	0.84	0.75
3-PD9	3/8"	11/16"	2.44	0.91	0.81
3-PD11	3/8"	3/4"	2.44	1.98	0.88
3-PD13	3/8"	13/16"	2.44	1.05	0.94
3-PD15	3/8"	7/8"	2.44	1.12	1.00

Part No.	Hose		Dimensions		
	I.D.	O.D.	A	B	HEX
1-SA0	3/16"	7/16"	2.62	1.00	0.56
1-SA3	3/16"	1/2"	2.62	1.00	0.63
1-SB1	1/4"	15/32"	2.69	1.00	0.63
1-SB3	1/4"	1/2"	2.69	1.00	0.63
1-SB5	1/4"	9/16"	2.69	1.00	0.69
1-SB7	1/4"	5/8"	2.69	1.00	0.75
1-SC5	5/16"	9/16"	2.81	1.00	0.69
1-SC7	5/16"	5/8"	2.81	1.00	0.75
1-SC9	5/16"	11/16"	2.81	1.00	0.81
1-SD5	3/8"	9/16"	2.81	1.00	0.69
1-SD7	3/8"	5/8"	2.81	1.00	0.75
1-SD9	3/8"	11/16"	2.81	1.00	0.81
1-SD11	3/8"	3/4"	2.81	1.00	0.88
1-SD13	3/8"	13/16"	2.81	1.00	0.94

\* 45° Male Flare    § With Ball Check    † With Bleeder Ball Check – Reduces hose whip when disconnecting    ‡ For use with push-on style hose

Optional Seal Materials: 138-Silicone, 143-Fluorocarbon, 192-EPDM

ONE-WAY  
TWO-WAYSTRAIGHT-THRU  
GAS

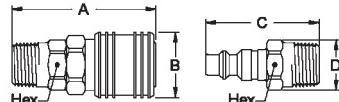
ACCESORIES

# SERIES 400

## SOCKETS

Part No.	Thread Size	Dimensions		
		A	B	HEX
410-A	1/8-27 NPTF	2.20	1.13	0.88
410	1/4-18 NPTF	2.35	1.13	0.88
430	3/8-18 NPTF	2.35	1.13	0.88
450	1/2-14 NPTF	2.54	1.13	0.88

### Male End Connections



## PLUGS

Part No.	Thread Size	Dimensions		
		C	D	HEX
38	1/8-27 NPTF	1.72	0.72	0.63
40	1/4-18 NPTF	1.88	0.72	0.63
40G†	1/4-18 NPTF	2.65	0.77	0.69
42	3/8-18 NPTF	1.88	0.79	0.69
42G†	3/8-18 NPTF	2.65	0.77	0.69
44	1/2-14 NPTF	2.09	1.01	0.88

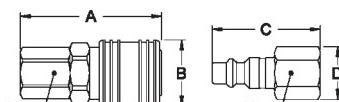
Part No.	Thread Size	Dimensions		
		C	D	HEX
B-40	1/4-18 NPTF	1.88	0.70	0.63
B-42	3/8-18 NPTF	1.88	0.77	0.69

Part No.	Thread Size	Dimensions		
		C	D	HEX
31AP-25M	1/4-18 NPTF	1.85	0.72	0.63
31AP-37M	3/8-18 NPTF	1.85	0.79	0.69

Part No.	Thread Size	Dimensions		
		A	B	HEX
400-A	1/8-27 NPTF	2.10	1.13	0.88
400	1/4-18 NPTF	2.10	1.13	0.88
420	3/8-18 NPTF	2.35	1.13	0.88
440	1/2-14 NPTF	2.62	1.13	1.00

### Female End Connections



Part No.	Thread Size	Dimensions		
		C	D	HEX
41	1/4-18 NPTF	1.63	0.79	0.69
41G†	1/4-18 NPTF	2.56	0.77	0.69
43	3/8-18 NPTF	1.81	0.94	0.81
43G†	3/8-18 NPTF	2.62	0.84	0.75
45	1/2-14 NPTF	2.06	1.15	1.00

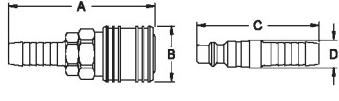
Part No.	Thread Size	Dimensions		
		C	D	HEX
B-43	3/8-18 NPTF	1.81	0.91	0.81

Part No.	Thread Size	Dimensions		
		C	D	HEX
31AP-25F	1/4-18 NPTF	1.60	0.79	0.69
31AP-37F	3/8-18 NPTF	1.78	0.94	0.81

Part No.	Hose I.D.	Dimensions	
		A	B
4004	1/4"	2.82	1.13
4050	5/16"	2.82	1.13
4006	3/8"	2.82	1.13
4008	1/2"	2.82	1.13

### Hose Stem End Connections



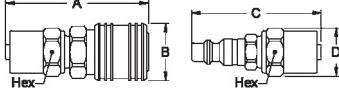
Part No.	Hose I.D.	Dimensions	
		C	D
404	1/4"	2.34	0.63
406	3/8"	2.34	0.63
408	1/2"	2.34	0.81

Part No.	Hose I.D.	Dimensions		
		C	D	HEX
B-406	3/8"	2.34	0.63	

Part No.	Hose		Dimensions		
	I.D.	O.D.	A	B	HEX
40-SB3	1/4"	1/2"	2.92	1.13	0.63
40-SB7	1/4"	5/8"	2.92	1.13	0.75
40-SD7	3/8"	5/8"	3.04	1.13	0.75
40-SD9	3/8"	11/16"	3.04	1.13	0.81
40-SD11	3/8"	3/4"	3.04	1.13	0.88
40-SD13	3/8"	13/16"	3.04	1.13	0.94
40-SP13	1/2"	13/16"	3.67	1.13	0.94
40-SP15	1/2"	7/8"	3.67	1.13	1.00
40-SP17	1/2"	15/16"	3.67	1.13	1.06
40-SP19	1/2"	1"	3.67	1.13	1.13

### Hose Clamp End Connections



Part No.	Hose	Dimensions			
		I.D.	O.D.	C	D
4-PB1	1/4"	15/32"	2.44	0.70	0.63
4-PB3	1/4"	1/2"	2.44	0.70	0.63
4-PB5	1/4"	9/16"	2.44	0.77	0.69
4-PB7	1/4"	5/8"	2.44	0.84	0.75
4-PB9	1/4"	11/16"	2.44	0.91	0.81
4-PB11	1/4"	3/4"	2.44	0.98	0.88
4-PD5	3/8"	9/16"	2.56	0.77	0.69
4-PD7	3/8"	5/8"	2.56	0.84	0.75
4-PD9	3/8"	11/16"	2.56	0.91	0.81
4-PD11	3/8"	3/4"	2.56	0.98	0.88
4-PD13	3/8"	13/16"	2.56	1.05	0.94
4-PD15	3/8"	7/8"	2.56	1.12	1.00
4-PP13	1/2"	13/16"	3.25	1.05	0.94
4-PP15	1/2"	7/8"	3.25	1.12	1.00
4-PP17	1/2"	15/16"	3.25	1.19	1.06
4-PP19	1/2"	1"	3.25	1.26	1.13

† With Bleeder Ball Check – Reduces hose whip when disconnecting

### Dust Plugs Accessories:

Coupling Series	Socket Dust Plug Part No.
1000	P-SDC-1-HK
400	P-SDC-2-HK
500	P-SDC-3-HK



Vinyl Dust Plug

### Optional Seal Materials:

138-Silicone,  
143-Fluorocarbon,  
192-EPDM



1/2" Nominal

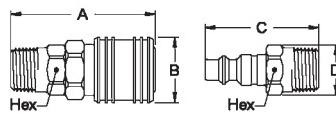
Tuthill

500 SERIES

## SOCKETS

Part No.	Thread Size	Dimensions		
		A	B	HEX
501	1/4-18 NPTF	2.77	1.19	1.00
510	3/8-18 NPTF	2.78	1.19	1.00
530	1/2-14 NPTF	2.97	1.19	1.00
550	3/4-14 NPTF	2.97	1.19	1.06

## Male End Connections

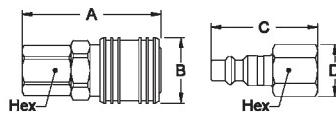


## PLUGS

Part No.	Steel	Thread Size	Dimensions		
			C	D	HEX
50	Steel	1/4-18 NPTF	2.25	0.79	0.69
50G†	Steel	1/4-18 NPTF	2.90	0.98	0.88
52	Steel	3/8-18 NPTF	2.25	0.87	0.75
52G†	Steel	3/8-18 NPTF	2.90	0.98	0.88
54	Steel	1/2-14 NPTF	2.44	1.01	0.88
54G†	Steel	1/2-14 NPTF	3.09	0.98	0.88
56	Steel	3/4-14 NPTF	2.50	1.23	1.06
56G†	Steel	3/4-14 NPTF	3.14	1.19	1.06
<b>Brass</b>					
B-52	Brass	3/8-18 NPTF	2.25	0.70	0.63
B-54	Brass	1/2-14 NPTF	2.44	0.77	0.88

Part No.	Thread Size	Dimensions		
		A	B	HEX
500-A	1/4-18 NPTF	2.72	1.19	1.00
500	3/8-18 NPTF	2.78	1.19	1.00
520	1/2-14 NPTF	3.06	1.19	1.00
540	3/4-14 NPTF	3.09	1.19	1.19

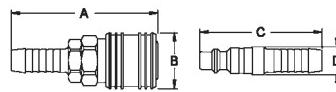
## Female End Connections



Part No.	Steel	Thread Size	Dimensions		
			C	D	HEX
53-A	Steel	1/4-18 NPTF	1.92	0.79	0.69
53	Steel	3/8-18 NPTF	2.06	0.94	0.81
53G†	Steel	3/8-18 NPTF	2.90	0.98	0.88
55	Steel	1/2-14 NPTF	2.34	1.15	1.00
55G†	Steel	1/2-14 NPTF	3.17	0.98	0.88
57	Steel	3/4-14 NPTF	2.44	1.37	1.19

Part No.	Brass	Hose I.D.	Dimensions	
			A	B
570	Brass	3/8"	3.32	1.19
580	Brass	1/2"	3.24	1.19
590	Brass	3/4"	4.09	1.19

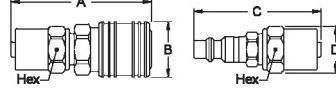
## Hose Stem End Connections



Part No.	Steel	Hose I.D.	Dimensions	
			C	D
585	Steel	5/16"	2.66	0.69
585G†	Steel	5/16"	3.37	0.98
59	Steel	3/8"	2.66	0.69
59G†	Steel	3/8"	3.37	0.98
60	Steel	1/2"	2.66	0.75
60G†	Steel	1/2"	3.37	0.98
61	Steel	3/4"	3.50	1.00
61G†	Steel	3/4"	4.22	0.98
<b>Brass</b>				
B-60	Brass	1/2"	2.75	0.88

Part No.	Hose		Dimensions		
	I.D.	O.D.	A	B	HEX
50-SD7	3/8"	5/8"	3.49	1.19	0.75
50-SD13	3/8"	13/16"	3.49	1.19	0.94
50-SP13	1/2"	13/16"	4.09	1.19	0.94
50-SP15	1/2"	7/8"	4.09	1.19	1.00
50-SP17	1/2"	15/16"	4.09	1.19	1.06
50-SP19	1/2"	1"	4.09	1.19	1.13
50-SR23	3/4"	1 1/8"	4.22	1.19	1.25
50-SR25	3/4"	1 3/16"	4.22	1.19	1.31
50-SR27	3/4"	1 1/4"	4.22	1.19	1.38

## Hose Clamp End Connections



Part No.	Steel	Hose	Dimensions			
			C	D	HEX	
5-PB1	Steel	1/4"	15/32"	2.81	0.70	0.63
5-PB3	Steel	1/4"	1/2"	2.81	0.70	0.63
5-PB5	Steel	1/4"	9/16"	2.81	0.77	0.69
5-PB7	Steel	1/4"	5/8"	2.81	0.84	0.75
5-PD5	Steel	3/8"	9/16"	2.94	0.77	0.69
5-PD7	Steel	3/8"	5/8"	2.94	0.84	0.75
5-PD9	Steel	3/8"	11/16"	2.94	0.91	0.81
5-PD11	Steel	3/8"	3/4"	2.94	0.98	0.88
5-PD13	Steel	3/8"	13/16"	2.94	1.05	0.94
5-PD15	Steel	3/8"	7/8"	2.94	1.12	1.00
5-PP13	Steel	1/2"	13/16"	3.62	1.05	0.94
5-PP15	Steel	1/2"	7/8"	3.62	1.12	1.00
5-PP17	Steel	1/2"	15/16"	3.62	1.19	1.06
5-PP19	Steel	1/2"	1"	3.62	1.26	1.13
5-PR23	Steel	3/4"	1 1/8"	3.75	1.40	1.25
5-PR25	Steel	3/4"	1 3/16"	3.75	1.47	1.31
5-PR27	Steel	3/4"	1 1/4"	3.75	1.54	1.38

† With Bleeder Ball Check – Reduces hose whip when disconnecting

Optional Seal Materials: 143-Fluorocarbon, 192-EPDM

# SERIES 3000/4000/5000/6000



## Industrial Interchange Pin Lock

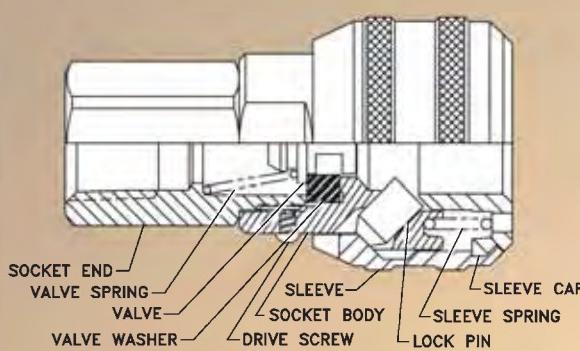
couplings designed for compressed air, gases, and liquids. Body sizes are 1/4", 3/8", 1/2" and 3/4".

## FEATURES

- The original automatic one-way shutoff coupling designed by Hansen—The Industry Standard
- Easy, automatic, push-to-connect design provides instantaneous connection and disconnection of lines, plus automatic shut-off of socket end of line
- All sizes accept US Industrial Interchange; 1/4" and 1/2" also accept ISO 1650 Series B and A-A-59439 (former MIL-C-4109) plugs
- Optional sleeve lock prevents accidental disconnection
- Optional seal and valve materials available

## APPLICATIONS & MARKETS

- Industrial Breathing Air
- Maintenance & Repair
- General Pneumatics
- Fluid Transfer



Shown with optional sleeve lock.

### Interchangeability

All Sizes	1/4" & 1/2"
US Industrial Interchange	ISO 6150 Series B A-A-59439 (former MIL-C-4109)

### Materials

#### Socket:

- Brass Body
- Zinc Plated Steel Valve
- Buna-N (Nitrile) Seal
- Stainless Steel Springs
- Stainless Steel Locking Pins

#### Plug:

- Zinc Plated Case-Hardened Steel
- Brass
- Stainless Steel (1/4" only)



**1/4" to 3/4" nominal  
(6.35 mm to 19.05 mm)**



**-40° F to 250° F  
-40° C to 120° C**



### Rated Pressure

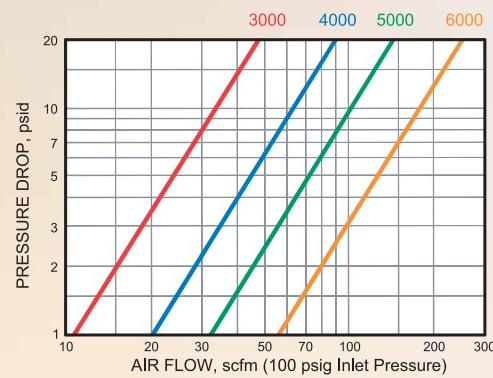
Series	Size	PSI	BAR
3000	1/4"	2,000	138
4000	3/8"	1,000	69
5000	1/2"	500	35
6000	3/4"	220	15



### Flow Capacity

Series	† Ac
3000	24
4000	45
5000	72
6000	125

† Air flow (scfm)  
with 5 psi pressure drop and 100 psig inlet pressure.

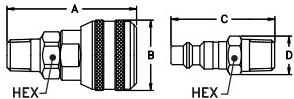


## 3000 SERIES

## SOCKETS

Part No. Brass	Thread Size	Dimensions		
		A	B	HEX
2900	1/8-27 NPTF	2.00	1.19	0.69
3100	1/4-18 NPTF	2.19	1.19	0.69
3300	3/8-18 NPTF	2.15	1.19	0.69
3000-43*	7/16-20	2.10	1.19	0.69
3000-63*	5/8-18	2.22	1.19	0.69

## Male End Connections



## PLUGS

Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
10	1/4-18 NPTF	1.75	0.65	0.56
10C§	1/4-18 NPTF	1.75	0.65	0.56
10G†	1/4-18 NPTF	1.75	0.65	0.56
12	1/8-27 NPTF	1.59	0.58	0.50
12G†	1/8-27 NPTF	2.38	0.77	0.69
14	3/8-18 NPTF	1.75	0.79	0.69
14G†	3/8-18 NPTF	2.53	0.77	0.69

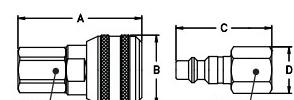
Part No. Brass	Thread Size	Dimensions		
		C	D	HEX
B-10	1/4-18 NPTF	1.75	0.64	0.56

Part No. Stainless	Thread Size	Dimensions		
		C	D	HEX
LL-10	1/4-18 NPTF	1.75	0.65	0.56

Part No. Brass	Thread Size	Dimensions		
		A	B	HEX
2800	1/8-27 NPTF	1.89	1.19	0.69
3000	1/4-18 NPTF	2.11	1.19	0.69
3200	3/8-18 NPTF	2.19	1.19	0.75

## Female End Connections



Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
11	1/4-18 NPTF	1.63	0.79	0.69
11G†	1/4-18 NPTF	2.44	0.77	0.69
13	1/8-27 NPTF	1.47	0.65	0.56
15	3/8-18 NPTF	1.69	0.94	0.81
15G†	3/8-18 NPTF	2.50	0.84	0.75

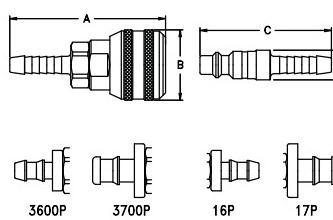
Part No. Brass	Thread Size	Dimensions		
		C	D	HEX
11B	1/4-18 NPTF	1.63	0.78	0.69

Part No. Stainless	Thread Size	Dimensions		
		C	D	HEX
LL-11	1/4-18 NPTF	1.63	0.79	0.69

Part No. Brass	Hose I.D.	Dimensions	
		A	B
3600	1/4"	2.63	1.19
3600P‡	1/4"	2.40	1.19
3700	3/8"	2.63	1.19
3700P‡	3/8"	2.47	1.19
3800	5/16"	2.63	1.19

## Hose Stem End Connections



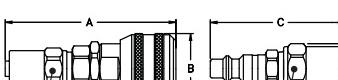
Part No. Steel	Hose I.D.	Dimensions	
		C	D
16	1/4"	2.22	0.50
16G†	1/4"	2.97	0.77
16P‡	1/4"	2.00	0.69
16PG†‡	1/4"	2.75	0.77
17	3/8"	2.31	0.50
17G†	3/8"	2.96	0.77
17P‡	3/8"	2.06	0.87
17PG†‡	3/8"	2.85	0.87
18	5/16"	2.22	0.50

Part No. Brass	Hose I.D.	Dimensions	
		C	D
B-17	3/8"	2.31	0.50

Part No. Brass	Hose I.D.	Dimensions		
		A	B	HEX
3-SA0	3/16"	2.65	1.19	0.56
3-SA3	3/16"	2.65	1.19	0.63
3-SB1	1/4"	2.72	1.19	0.63
3-SB3	1/4"	2.72	1.19	0.63
3-SB5	1/4"	2.72	1.19	0.69
3-SB7	1/4"	2.72	1.19	0.75
3-SB9	1/4"	2.72	1.19	0.81
3-SB11	1/4"	2.72	1.19	0.88
3-SC5	5/16"	2.78	1.19	0.69
3-SC7	5/16"	2.78	1.19	0.75
3-SC9	5/16"	2.78	1.19	0.81
3-SD5	3/8"	2.84	1.19	0.69
3-SD7	3/8"	2.84	1.19	0.75
3-SD9	3/8"	2.84	1.19	0.81
3-SD11	3/8"	2.84	1.19	0.88
3-SD13	3/8"	2.84	1.19	0.94

## Hose Clamp End Connections



Part No. Steel	I.D.	O.D.	Dimensions		
			C	D	HEX
3-PA0	3/16"	7/16"	2.25	0.63	0.56
3-PA3	3/16"	1/2"	2.25	0.70	0.63
3-PB1	1/4"	15/32"	2.31	0.70	0.63
3-PB3	1/4"	1/2"	2.31	0.70	0.63
3-PB5	1/4"	9/16"	2.31	0.77	0.69
3-PB7	1/4"	5/8"	2.31	0.84	0.75
3-PB9	1/4"	11/16"	2.31	0.91	0.81
3-PB11	1/4"	3/4"	2.31	0.98	0.88
3-PC5	5/16"	9/16"	2.38	0.77	0.69
3-PC7	5/16"	5/8"	2.38	0.84	0.75
3-PC9	5/16"	11/16"	2.38	0.91	0.81
3-PD5	3/8"	9/16"	2.44	0.77	0.69
3-PD7	3/8"	5/8"	2.44	0.84	0.75
3-PD9	3/8"	11/16"	2.44	0.91	0.81
3-PD11	3/8"	3/4"	2.44	0.98	0.88
3-PD13	3/8"	13/16"	2.44	1.05	0.94
3-PD15	3/8"	7/8"	2.44	1.12	1.00

\* 45° Male Flare    § With Ball Check    † With Bleeder Ball Check – Reduces hose whip when disconnecting    ‡ For use with push-on style hose

Optional Seal Materials: 138-Silicone, 143-Fluorocarbon, 192-EPDM

ONE-WAY

TWO-WAY

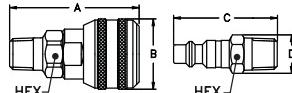
GAS

ACCESORIES

## SERIES 4000

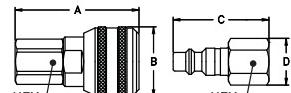
**SOCKETS**

Part No. Brass	Thread Size	Dimensions		
		A	B	HEX
4100-A	1/8-27 NPTF	2.20	1.13	0.88
4100	1/4-18 NPTF	2.35	1.13	0.88
4300	3/8-18 NPTF	2.35	1.13	0.88
4500	1/2-14 NPTF	2.54	1.13	0.88

**Male End Connections**

**PLUGS**

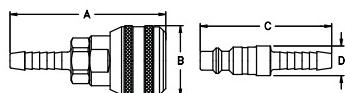
Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
38	1/8-27 NPTF	1.72	0.72	0.63
40	1/4-18 NPTF	1.88	0.72	0.63
40G†	1/4-18 NPTF	2.65	0.77	0.69
42	3/8-18 NPTF	1.88	0.79	0.69
42G†	3/8-18 NPTF	2.65	0.77	0.69
44	1/2-14 NPTF	2.09	1.01	0.88
<b>Brass</b>				
B-40	1/4-18 NPTF	1.88	0.70	0.63
B-42	3/8-18 NPTF	1.88	0.77	0.69

Part No. Brass	Thread Size	Dimensions		
		A	B	HEX
4000-A	1/8-27 NPTF	2.10	1.38	0.88
4000	1/4-18 NPTF	2.10	1.38	0.88
4200	3/8-18 NPTF	2.35	1.38	0.88
4400	1/2-14 NPTF	2.62	1.38	1.00

**Female End Connections**


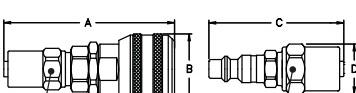
Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
41	1/4-18 NPTF	1.63	0.79	0.69
41G†	1/4-18 NPTF	2.56	0.77	0.69
43	3/8-18 NPTF	1.81	0.94	0.81
43G†	3/8-18 NPTF	2.62	0.84	0.75
45	1/2-14 NPTF	2.06	1.15	1.00
<b>Brass</b>				
B-43	3/8-18 NPTF	1.81	0.91	0.81

Part No. Brass	Hose I.D.	Dimensions	
		A	B
40400	1/4"	2.82	1.38
40500	5/16"	2.82	1.38
40600	3/8"	2.82	1.38
40800	1/2"	2.82	1.38

**Hose Stem End Connections**


Part No. Steel	Hose I.D.	Dimensions	
		C	D
404	1/4"	2.34	0.63
406	3/8"	2.34	0.63
408	1/2"	2.34	0.81
<b>Brass</b>			
B-406	3/8"	2.34	0.63

Part No. Brass	Hose		Dimensions		
	I.D.	O.D.	A	B	HEX
4-SB3	1/4"	1/2"	2.92	1.38	0.63
4-SB5	1/4"	9/16"	2.92	1.38	0.69
4-SB7	1/4"	5/8"	2.92	1.38	0.75
4-SB9	1/4"	11/16"	2.92	1.38	0.81
4-SB11	1/4"	3/4"	2.92	1.38	0.88
4-SC7	5/16"	5/8"	2.98	1.38	0.75
4-SD5	3/8"	9/16"	3.04	1.38	0.69
4-SD7	3/8"	5/8"	3.04	1.38	0.75
4-SD9	3/8"	11/16"	3.04	1.38	0.81
4-SD11	3/8"	3/4"	3.04	1.38	0.88
4-SD15	3/8"	7/8"	3.04	1.38	1.00
4-SP13	1/2"	13/16"	3.67	1.38	0.94
4-SP15	1/2"	7/8"	3.67	1.38	1.00
4-SP17	1/2"	15/16"	3.67	1.38	1.06
4-SP19	1/2"	1"	3.67	1.38	1.13

**Hose Clamp End Connections**


Part No. Steel	Hose	Dimensions			HEX
		I.D.	O.D.	C	
4-PB1	1/4"	15/32"	2.44	0.70	0.63
4-PB3	1/4"	1/2"	2.44	0.70	0.63
4-PB5	1/4"	9/16"	2.44	0.77	0.69
4-PB7	1/4"	5/8"	2.44	0.84	0.75
4-PB9	1/4"	11/16"	2.44	0.91	0.81
4-PB11	1/4"	3/4"	2.44	0.98	0.88
4-PD5	3/8"	9/16"	2.56	0.77	0.69
4-PD7	3/8"	5/8"	2.56	0.84	0.75
4-PD9	3/8"	11/16"	2.56	0.91	0.81
4-PD11	3/8"	3/4"	2.56	0.98	0.88
4-PD13	3/8"	13/16"	2.56	1.05	0.94
4-PD15	3/8"	7/8"	2.56	1.12	1.00
4-PP13	1/2"	13/16"	3.25	1.05	0.94
4-PP15	1/2"	7/8"	3.25	1.12	1.00
4-PP17	1/2"	15/16"	3.25	1.19	1.06
4-PP19	1/2"	1"	3.25	1.26	1.13

† With Bleeder Ball Check – Reduces hose whip when disconnecting

**Optional Seal Materials:** 138-Silicone, 143-Fluorocarbon, 192-EPDM



1/2" Nominal

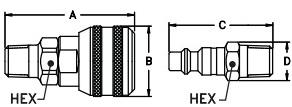
Tuthill

## 5000 SERIES

## SOCKETS

Part No. Brass	Thread Size	Dimensions		
		A	B	HEX
50100	1/4-18 NPTF	2.78	1.50	1.00
5100	3/8-18 NPTF	2.79	1.50	1.00
5300	1/2-14 NPTF	2.98	1.50	1.00
5500	3/4-14 NPTF	2.98	1.50	1.06

## Male End Connections

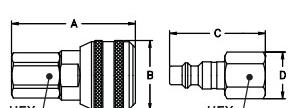


## PLUGS

Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
50	1/4-18 NPTF	2.25	0.79	0.69
50G†	1/4-18 NPTF	2.90	0.98	0.88
52	3/8-18 NPTF	2.25	0.87	0.75
52G†	3/8-18 NPTF	2.90	0.98	0.88
54	1/2-14 NPTF	2.44	1.01	0.88
54G†	1/2-14 NPTF	3.09	0.98	0.88
56	3/4-14 NPTF	2.50	1.23	1.06
56G†	3/4-14 NPTF	3.14	1.19	1.06
Brass				
B-52	3/8-18 NPTF	2.25	0.70	0.63
B-54	1/2-14 NPTF	2.44	0.77	0.88

Part No. Brass	Thread Size	Dimensions		
		A	B	HEX
5000-A	1/4-18 NPTF	2.72	1.50	1.00
5000	3/8-18 NPTF	2.79	1.50	1.00
5200	1/2-14 NPTF	3.07	1.50	1.00
5400	3/4-14 NPTF	3.10	1.50	1.19

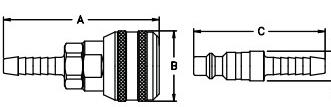
## Female End Connections



Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
53-A	1/4-18 NPTF	1.92	0.79	0.69
53	3/8-18 NPTF	2.06	0.94	0.81
53G†	3/8-18 NPTF	2.90	0.98	0.88
55	1/2-14 NPTF	2.34	1.15	1.00
55G†	1/2-14 NPTF	3.17	0.98	0.88
57	3/4-14 NPTF	2.44	1.37	1.19

Part No. Brass	Hose I.D.	Dimensions	
		A	B
50400	1/4"	3.26	1.50
50500	5/16"	3.29	1.50
5700	3/8"	3.33	1.50
5800	1/2"	3.25	1.50
5900	3/4"	4.10	1.50

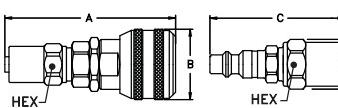
## Hose Stem End Connections



Part No. Steel	Hose I.D.	Dimensions	
		C	D
585	5/16"	2.66	0.69
585G†	5/16"	3.37	0.98
59	3/8"	2.66	0.69
59G†	3/8"	3.37	0.98
60	1/2"	2.66	0.75
60G†	1/2"	3.37	0.98
61	3/4"	3.50	1.00
61G†	3/4"	4.22	0.98
Brass			
B-60	1/2"	2.75	0.88

Part No. Brass	Hose		Dimensions		
	I.D.	O.D.	A	B	HEX
5-SD5	3/8"	9/16"	3.50	1.50	0.69
5-SD7	3/8"	5/8"	3.50	1.50	0.75
5-SD9	3/8"	11/16"	3.50	1.50	0.81
5-SD11	3/8"	3/4"	3.50	1.50	0.88
5-SD13	3/8"	13/16"	3.50	1.50	0.94
5-SD15	3/8"	7/8"	3.50	1.50	1.00
5-SP13	1/2"	13/16"	4.10	1.50	0.94
5-SP15	1/2"	7/8"	4.10	1.50	1.00
5-SP17	1/2"	15/16"	4.10	1.50	1.06
5-SP19	1/2"	1"	4.10	1.50	1.13
5-SR23	3/4"	1 1/8"	4.23	1.50	1.25
5-SR25	3/4"	1 1/16"	4.23	1.50	1.31
5-SR27	3/4"	1 1/4"	4.23	1.50	1.38

## Hose Clamp End Connections



Part No. Steel	Hose	Dimensions		
		I.D.	O.D.	C
5-PB1	1/4"	15/32"	2.81	0.70
5-PB3	1/4"	1/2"	2.81	0.70
5-PB5	1/4"	9/16"	2.81	0.77
5-PB7	1/4"	5/8"	2.81	0.84
5-PD5	3/8"	9/16"	2.94	0.77
5-PD7	3/8"	5/8"	2.94	0.84
5-PD9	3/8"	11/16"	2.94	0.91
5-PD11	3/8"	3/4"	2.94	0.98
5-PD13	3/8"	13/16"	2.94	1.05
5-PD15	3/8"	7/8"	2.94	1.12
5-PP13	1/2"	13/16"	3.62	1.05
5-PP15	1/2"	7/8"	3.62	1.12
5-PP17	1/2"	15/16"	3.62	1.19
5-PP19	1/2"	1"	3.62	1.26
5-PR23	3/4"	1 1/8"	3.75	1.40
5-PR25	3/4"	1 1/16"	3.75	1.47
5-PR27	3/4"	1 1/4"	3.75	1.54

† With Bleeder Ball Check – Reduces hose whip when disconnecting

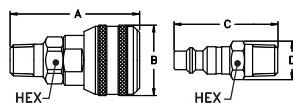
Optional Seal Materials: 143-Fluorocarbon, 192-EPDM

## SERIES 6000

## SOCKETS

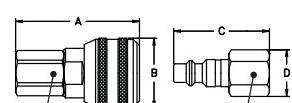
Part No. Brass	Thread Size	Dimensions		
		A	B	HEX
6300	1/2-14 NPTF	2.94	1.88	1.31
6500	3/4-14 NPTF	2.94	1.88	1.31
6700	1-11½ NPTF	3.13	1.88	1.31

## Male End Connections



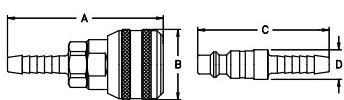
Part No. Brass	Thread Size	Dimensions		
		A	B	HEX
6200	1/2-14 NPTF	2.85	1.88	1.31
6400	3/4-14 NPTF	3.00	1.88	1.31
6600	1-11½ NPTF	3.19	1.88	1.56

## Female End Connections



Part No. Brass	Hose I.D.	Dimensions	
		A	B
6800	1/2"	3.21	1.88
6900	3/4"	4.06	1.88
7000	1"	4.07	1.88

## Hose Stem End Connections



† With Bleeder Ball Check – Reduces hose whip when disconnecting

## Dust Caps and Dust Plugs Accessories:

Coupling Series	Plug Dust Cap Part No.		Socket Dust Plug Part No.	
	Metal	Vinyl	Metal	Vinyl
3000	PDC-3000*	—	SDC-3000*	P-SDC-1-HK
4000	—	—	—	P-SDC-2-HK
5000	—	P-PDC-2-HK	—	—
6000	—	P-PDC-3-HK	—	—

\*Brass

## PLUGS

Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
64A	1/2-14 NPTF	2.31	1.15	1.00
64GAT†	1/2-14 NPTF	3.26	1.12	1.00
66A	3/4-14 NPTF	2.38	1.23	1.06
66GAT†	3/4-14 NPTF	3.26	1.19	1.06
68A	1-11½ NPTF	2.56	1.52	1.31
<b>Brass</b>				
B-64A	1/2-14 NPTF	2.31	1.12	1.00
B-66A	3/4-14 NPTF	2.38	1.19	1.06

Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
65A	1/2-14 NPTF	2.22	1.15	1.00
65GAT†	1/2-14 NPTF	3.35	1.12	1.00
67A	3/4-14 NPTF	2.22	1.37	1.19
67GAT†	3/4-14 NPTF	3.38	1.33	1.19
69A	1-11½ NPTF	2.41	1.80	1.56

Part No. Steel	Hose I.D.	Dimensions	
		C	D
70A	1/2"	2.53	0.94
70GAT†	1/2"	3.53	1.12
71A	3/4"	3.44	1.06
71GAT†	3/4"	4.38	1.12
72A	1"	3.44	1.31
<b>Brass</b>			
B-71A	3/4"	3.44	1.06

Metal Dust Cap



Metal Dust Plug



Vinyl Dust Cap



Vinyl Dust Plug

## Optional Seal Materials: 143-Fluorocarbon

NEED TO PLACE AN ORDER?  
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AT [WWW.TUTHILL.COM](http://WWW.TUTHILL.COM).

# P-30&P-40 SERIES



**Industrial Interchange Plastic** quick connect couplings designed for compressed air. Body sizes are 1/4" and 3/8".

## FEATURES

- Plastic socket body and plug
- Light-weight
- Less likely to damage painted or easily scratched surfaces than metal couplings
- Easy, automatic, push-to-connect design provides instantaneous connection and disconnection of lines, plus automatic shut-off of socket end of line
- Series P-30 accepts all series 3000 plugs; Series P-40 accepts series 4000 plugs

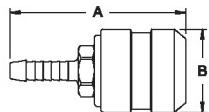
## APPLICATIONS & MARKETS

- General Pneumatics

## SOCKETS

### Hose Stem End Connections

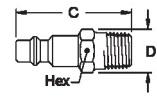
Part No.	Hose I.D.	Dimensions	
		A	B
P4-30S-25H	1/4"	2.66	1.25
P7-40S-37H	3/8"	2.82	1.44



## PLUGS

### Male End Connections

Part No.	Steel	Thread Size	Dimensions		
			C	D	HEX
P4-30P-25M		1/4-18 NPTF	1.75	0.65	0.56
P7-40P-37M		3/8-18 NPTF	1.88	0.79	0.69



### Interchangeability

All Sizes	1/4" only
US Industrial Interchange	ISO 6150 Series B
	A-A-59439 (former MIL-C-4109)



### Materials

#### Socket:

- Acetal Body
- Polypropylene Sleeve
- Zinc Plated Steel Valve
- Buna-N (Nitrile) Seal
- Stainless Steel Spring

#### Plug:

- Acetal
- Series P-30 accepts all Series 3000 plugs
- Series P-40 accepts all Series 4000 plugs



**1/4" to 3/8" nominal  
(6.35 mm to 9.52 mm)**



**Up to 125° F (52° C)**



### Rated Pressure

Series	Size	PSI	BAR
P-30	1/4"	150	10
P-40	3/8"	150	10

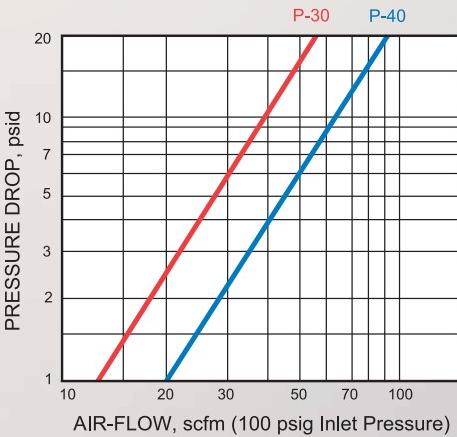
\* At temperatures up to 125°



### Flow Capacity

Series	†Ac
P-30	28
P-40	45

† Air flow (scfm)  
with 5 psi pressure drop and 100 psig inlet pressure.





# SERIES AUTO-FLO<sup>23 & 24</sup>



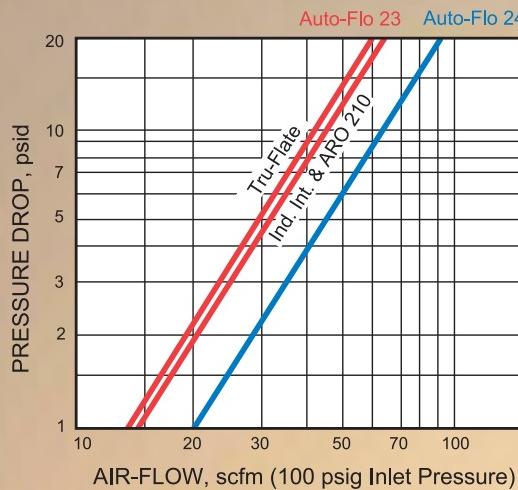
**Auto-Flo 23 & 24** are high flow, automatic quick connect couplings designed for use with compressed air. The universal design makes the Auto-Flo an extremely flexible coupling series.

## FEATURES

- Auto-Flo 23 was the first automatic universal coupling designed to operate with Industrial, ARO 210 and Tru-Flate Interchange plugs
- Auto-Flo 24 operates with CEJN 320 and Rectus 25 Interchange plugs
- Easy, automatic, push-to-connect design provides instantaneous connection and disconnection of lines, plus automatic shut-off of socket end of line
- Sleeve guard protects against accidental disconnection

## APPLICATIONS & MARKETS

- General Pneumatics    • Air Tools    • Construction



## Interchangeability

Auto-Flo 23	Auto-Flo 24 (Euro Interchange)
US Industrial Interchange	
ISO 6150 Series B	
A-A-59439 (former MIL-C-4109)	CEJN 320
Tru-Flate Interchange	RECTUS 25
ARO 210 Interchange	

## Materials

### Socket:

- Brass Body
- Brass Valve
- Zinc Plated Steel Sleeve
- Buna-N (Nitrile) Seal
- Stainless Steel Spring
- Stainless Steel Locking Balls

### Plug:

- Industrial Interchange
  - Zinc Plated Case-Hardened Steel
  - Brass
  - Stainless Steel
- ARO 210, Tru-Flate and CEJN/Rectus Interchanges
  - Zinc Plated Case-Hardened Steel

## 1/4" nominal (6.35 mm)

-40° F to 250° F  
-40° C to 120° C

## Pressure Ratings

Series	PSI	BAR
Auto-Flo 23	150	10
Auto-Flo 24	150	10

## Flow Capacities

Plug Interchange	†Ac
Industrial	32
ARO 210	32
Tru-Flate	30
Auto-Flo 24	45

† Air flow (scfm)  
with 5 psi pressure drop and 100 psig inlet pressure.



1/4" Nominal

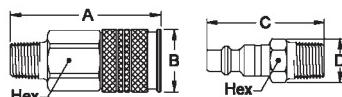
Tuthill

# AUTO-FLO 23 SERIES

## SOCKETS

Part No.	Thread Size	Dimensions		
		A	B	HEX
B23AS-25M	1/4-18 NPTF	2.23	0.94	0.81
B23AS-25MBST	1/4-19 BSPT	2.23	0.94	0.81
B23AS-37M	3/8-18 NPTF	2.23	0.94	0.81
B23AS-37MBST	3/8-19 BSPT	2.23	0.94	0.81
B23AS-50MBST	1/2-14 BSPT	2.23	0.94	0.88

### Male End Connections

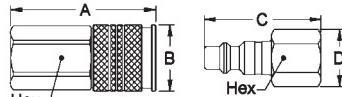


## PLUGS

Part No.	Steel	Dimensions		
		C	D	HEX
10	10	1.75	0.65	0.56
10C§	10C§	1.75	0.65	0.56
10G†	10G†	1.75	0.65	0.56
12	12	1.59	0.58	0.50
12G†	12G†	2.38	0.77	0.69
14	14	1.75	0.79	0.69
14G†	14G†	2.53	0.77	0.69
Brass				
B-10	B-10	1.75	0.64	0.56
Stainless				
LL-10	LL-10	1.75	0.65	0.56
ARO 210 Interchange				
2607	2607	1.42	0.58	0.50
2608	2608	1.68	0.65	0.56
2608B	2608B	1.68	0.65	0.56
20AP-37M	20AP-37M	1.68	0.79	0.69
Tru-Flate Interchange				
21AP-25M	21AP-25M	1.65	0.65	0.56
21AP-37M	21AP-37M	1.65	0.79	0.69

Part No.	Thread Size	Dimensions		
		A	B	HEX
B23AS-25F	1/4-18 NPTF	2.02	0.94	0.81
B23AS-25FBS	1/4-19 BSPP	2.02	0.94	0.81
B23AS-37F	3/8-18 NPTF	2.02	0.94	0.81
B23AS-37FBS	3/8-19 BSPP	2.02	0.94	0.81
B23AS-50FBS	3/8-14 BSPP	2.34	0.94	1.06

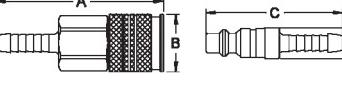
### Female End Connections



Part No.	Steel	Dimensions		
		C	D	HEX
11	11	1.63	0.79	0.69
11G†	11G†	2.44	0.77	0.69
13	13	1.47	0.65	0.56
15	15	1.69	0.94	0.81
15G†	15G†	2.50	0.84	0.75
Brass				
11B	11B	1.63	0.78	0.69
Stainless				
LL-11	LL-11	1.63	0.79	0.69
ARO 210 Interchange				
2609	2609	1.55	0.79	0.69
2609B	2609B	1.55	0.79	0.69
20AP-37F	20AP-37F	1.61	0.94	0.81
Tru-Flate Interchange				
21AP-25F	21AP-25F	1.53	0.79	0.69
21AP-37F	21AP-37F	1.59	0.94	0.81

Part No.	Hose I.D.	Dimensions	
		A	B
B23AS-25H	1/4"	2.76	0.94
B23AS-31H	5/16"	2.73	0.94
B23AS-37H	3/8"	2.73	0.94
B23AS-50H	1/2"	2.70	0.94

### Hose Stem End Connections



Part No.	Steel	Dimensions	
		C	D
16	16	1/4"	2.22
16G†	16G†	1/4"	2.97
16P‡	16P‡	1/4"	2.00
16PG†‡	16PG†‡	1/4"	2.75
17	17	3/8"	2.31
17G†	17G†	3/8"	2.96
17P‡	17P‡	3/8"	2.06
17PG†‡	17PG†‡	3/8"	2.85
18	18	5/16"	2.22
Brass			
B-17	B-17	3/8"	2.31
ARO 210 Interchange			
3946	3946	1/4"	2.14
3947	3947	5/16"	2.14
22238	22238	3/8"	2.14
Tru-Flate Interchange			
21AP-25H	21AP-25H	1/4"	0.50
21AP-37H	21AP-37H	3/8"	0.50

\* 45° Male Flare    § With Ball Check    † With Bleeder Ball Check – Reduces hose whip when disconnecting    ‡ For use with push-on style hose

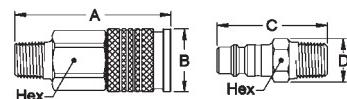


# SERIES AUTO-FLO 24

## SOCKETS

Part No.	Brass	Thread Size	Dimensions		
			A	B	HEX
B24AS-25M		1/4-18 NPTF	2.27	0.94	0.81
B24AS-25MBST		1/4-19 BSPT	2.27	0.94	0.81
B24AS-37MBST		3/8-19 BSPT	2.27	0.94	0.81
B24AS-50MBST		1/2-14 BSPT	2.27	0.94	0.88

## Male End Connections

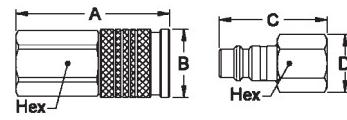


## PLUGS

Part No.	Steel	Thread Size	Dimensions		
			C	D	HEX
24AP-25MG		1/4-18 NPTF	1.64	0.65	0.56
24AP-25MBST		1/4-19 BSPT	1.62	0.65	0.56
24AP-37MBST		3/8-19 BSPT	1.62	0.79	0.69
24AP-50MBST		1/2-14 BSPT	1.88	1.01	0.88

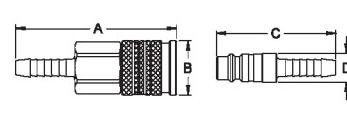
Part No.	Brass	Thread Size	Dimensions		
			A	B	HEX
B24AS-25F		1/4-18 NPTF	2.06	0.94	0.81
B24AS-25FBS		1/4-19 BSPP	2.06	0.94	0.81
B24AS-37FBS		3/8-19 BSPP	2.06	0.94	0.81
B24AS-50FBS		1/2-14 BSPP	2.38	0.94	1.06

## Female End Connections



Part No.	Brass	Hose I.D.	Dimensions	
			A	B
B24AS-25H		1/4"	2.80	0.94
B24AS-31H		5/16"	2.77	0.94
B24AS-37H		3/8"	2.77	0.94
B24AS-50H		1/2"	2.74	0.94

## Hose Stem End Connections



Part No.	Steel	Thread Size	Dimensions		
			C	D	HEX
24AP-25FG		1/4-18 NPTF	1.49	0.79	0.69
24AP-25FBS		1/4-19 BSPP	1.46	0.79	0.69
24AP-37FBS		3/8-19 BSPP	1.52	0.94	0.81
24AP-50FBS		1/2-14 BSPP	1.65	1.23	1.06

Part No.	Steel	Hose I.D.	Dimensions	
			C	D
24AP-25H		1/4"	2.08	0.50
24AP-31H		5/16"	2.08	0.50
24AP-37H		3/8"	2.08	0.50
24AP-50H		1/2"	2.08	0.63

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1/4" Industrial Interchange

# SAFELINE<sup>®</sup> SERIES

Tuthill



**The SAFELINE** Industrial Interchange pushbutton safety coupling is designed for use with compressed air. Two-step disconnect procedure shuts off air supply and releases downstream air pressure before plug can be removed from socket, which prevents hose whip.

## FEATURES

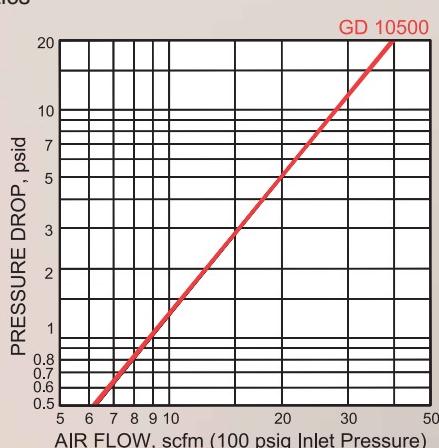
- Safe and easy to connect and disconnect
- Light weight, compact ergonomic design
- Accepts 1/4" ISO 6150 Series B and A-A-59439 (former MIL-C-4109) plugs

## OPERATION

- To connect: Push plug into socket
- To disconnect: (1) Push button on side of socket. Air supply is shut off and plug pops out 3/16 inch, but is not released from socket. Downstream air is vented. (2) Push plug into socket to release latch. Pull plug from socket.

## APPLICATIONS & MARKETS

- General Pneumatics
- Air Tools
- Industrial Plants
- Maintenance & Repair



### Interchangeability

- US Industrial Interchange
- ISO 6150 Series B
- A-A-59439 (Former MIL-C-4109)

### Materials

Socket:

- Aluminum and steel construction
- Buna-N (Nitrile) Seal

Plug:

- Use Series 3000 Plug

### 1/4" Nominal (6.35 mm)

-40° F to 250° F  
-40° C to 120° C

### Rated Pressure

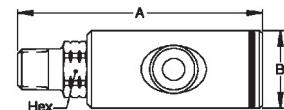
Series	PSI	Bar
GD 10500	232	16

### Flow Capacity

Series	†Ac
GD 10500	20

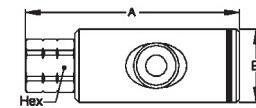
† Air flow (scfm)  
with 5 psi pressure drop and 100 psig inlet pressure.

### Male End Connections



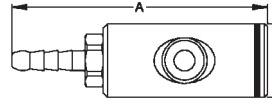
Part No.	Thread Size	A	B	HEX
GD 10536 41	1/4-18 NPTF	3.18	1.02	0.67
GD 10536 83	3/8-18 NPTF	3.18	1.02	0.75

### Female End Connections



Part No.	Thread Size	A	B	HEX
GD 10526 41	1/4-18 NPTF	2.97	1.02	0.67
GD 10526 83	3/8-18 NPTF	3.18	1.02	0.87

### Hose Stem End Connections



Part No.	Hose I.D.	A	B
GD 10556 67	1/4"	3.56	1.02
GD 10556 01	3/8"	3.56	1.02

ONE-WAY

TWO-WAY

STRAIGHT-THRU

GAS

ACCESSORIES



# SERIES 180&280



**Miniature Ball Lock** quick connect couplings designed for use with compressed air, gases and liquids.

## FEATURES

- Ball lock
- Manual operation
- Series 180 and 280 sockets mate with all Series 180 plugs
- Series 180 sockets have a tire valve
- Series 280 sockets have a 1-HK valve, which provides higher flow capacity
- Chrome plating available
- Additional seal materials available

## APPLICATIONS & MARKETS

- Diving
- Breathing Air
- General Pneumatics
- Pharmaceutical
- Laboratory Uses
- Medical



### Interchangeability

- Proprietary Interchange



### Materials

Socket:

- Brass Body and Sleeve
- Valve
  - 180: Nickel Plated Brass Tire Valve
  - 280: Brass Series 1-HK Valve
- Buna-N (Nitrile) Seal
- Stainless Steel Springs
- Stainless Steel Locking Balls

Plug:

- Brass



**1/8" nominal (3.175 mm)**



**-40° F to 250° F**

**-40° C to 120° C**



### Pressure Ratings

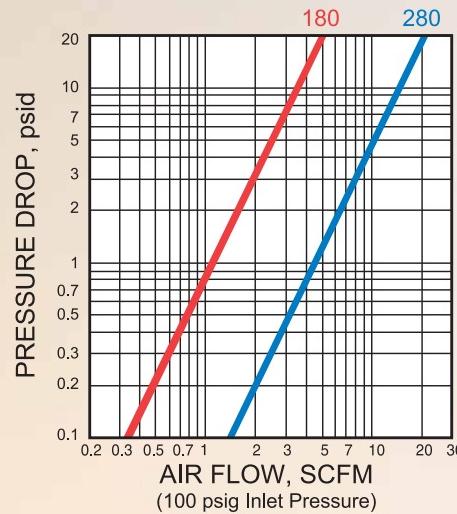
Series	PSI	BAR
180	700	48
280	3,000	207



### Flow Capacities

Series	† Ac
180	2.5
280	10.0

† Air flow (scfm)  
with 5 psi pressure drop and 100 psig inlet pressure.





1/8" Nominal

# 180&280 SERIES

ONE-WAY

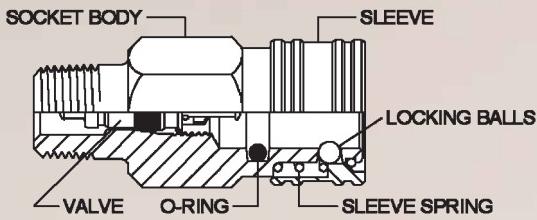
TWO-WAY

STRAIGHT-THRU

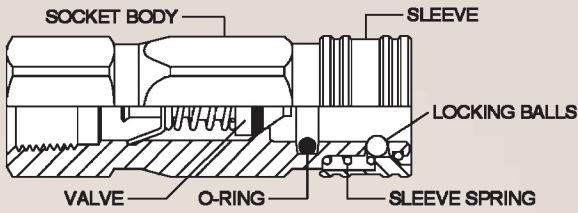
GAS

ACCESSORIES

## Series 180

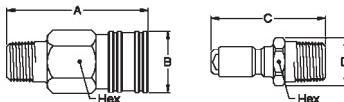


## Series 280



Part No. Brass	Thread Size	Dimensions		
		A	B	HEX
180	1/8-27 NPTF	1.41	0.63	0.56
28S-25M	1/4-18 NPTF	1.38	0.63	0.56

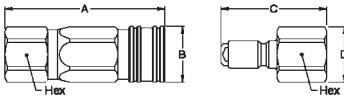
### Male End Connections



Part No. Brass	Thread Size	Dimensions		
		C	D	HEX
185	1/8-27 NPTF	1.16	0.49	0.44
186	1/4-18 NPTF	1.44	0.63	0.56

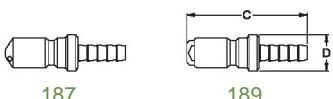
Part No. Brass	Thread Size	Dimensions		
		A	B	HEX
28S-12F	1/8-27 NPTF	1.78	0.63	0.56

### Female End Connections



Part No. Brass	Thread Size	Dimensions		
		C	D	HEX
183	1/8" NPTF	1.19	0.56	0.50

### Hose Stem End Connections



Part No. Steel	Hose I.D.	Dimensions	
		C	D
187	1/8"	1.25	0.38
189	3/16"	1.50	0.38

187

189

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## SERIES 100



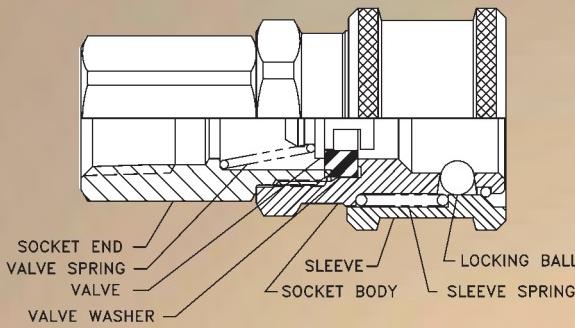
**Series 100** quick connect couplings are designed to prevent the crossing of lines. These couplings are used for compressed air and gasses.

## FEATURES

- Ball lock
- Manual operation
- Non-interchangeable design prevents crossing of lines

## APPLICATIONS &amp; MARKETS

- General Pneumatics
- Industrial Plants



## Interchangeability

- Proprietary Interchange



## Materials

Socket:

- Brass Body
- Brass Valve
- Brass Sleeve
- Buna-N (Nitrile) Seal
- Stainless Steel Spring
- Stainless Steel Locking Balls

Plug:

- Brass



## 1/4" nominal (6.35 mm)



-40° F to 250° F

-40° C to 120° C



## Pressure Ratings

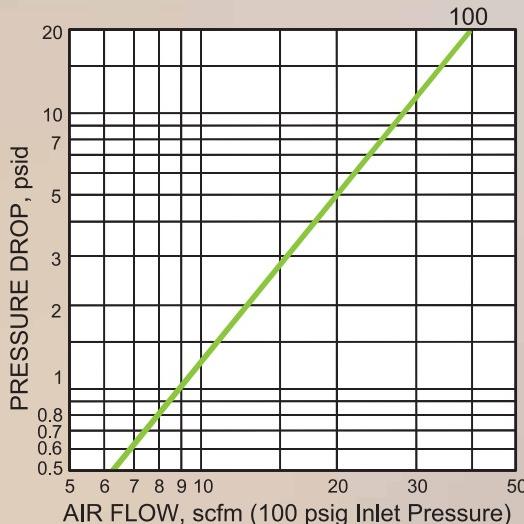
Series	PSI	BAR
100	350	24



## Flow Capacities

Series	† Ac
100	20

† Air flow (scfm)  
with 5 psi pressure  
drop and 100 psig  
inlet pressure.





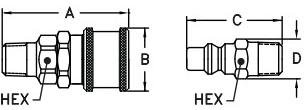
1/4" Nominal

## 100 SERIES

## SOCKETS

Part No. Brass	Thread Size	Dimensions		
		A	B	HEX
101	1/8-27 NPTF	1.94	1.00	0.69
103	1/4-18 NPTF	2.09	1.00	0.69
105	3/8-18 NPTF	2.09	1.00	0.69
100-63*	5/8-18	2.16	1.00	0.69

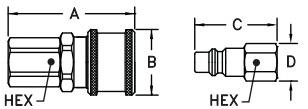
## Male End Connections



Part No. Brass	Thread Size	Dimensions		
		C	D	HEX
1G1	1/8-27 NPTF	1.38	0.65	0.56
1G3	1/4-18 NPTF	1.56	0.65	0.56
1G5	3/8-18 NPTF	1.56	0.79	0.69

Part No. Brass	Thread Size	Dimensions		
		A	B	HEX
100	1/8-27 NPTF	1.78	1.00	0.69
102	1/4-18 NPTF	2.00	1.00	0.69
104	3/8-18 NPTF	2.06	1.00	0.75

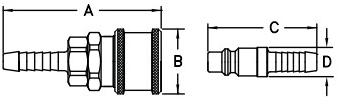
## Female End Connections



Part No. Brass	Thread Size	Dimensions		
		C	D	HEX
1G2	1/4-18 NPTF	1.43	0.79	0.69

Part No. Brass	Hose I.D.	Dimensions	
		A	B
110	1/4"	2.53	1.00
111	5/16"	2.53	1.00
112	3/8"	2.52	1.00

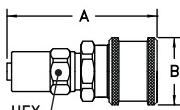
## Hose Stem End Connections



Part No. Brass	Hose I.D.	Dimensions	
		C	D
1G10	1/4"	2.00	0.56
1G12	3/8"	2.03	0.56

Part No. Brass	Hose		Dimensions		
	I.D.	O.D.	A	B	HEX
1-GB3	1/4"	1/2"	2.62	1.00	0.63
1-GB7	1/4"	5/8"	2.62	1.00	0.75
1-GD7	3/8"	5/8"	2.75	1.00	0.75
1-GD9	3/8"	11/16"	2.75	1.00	0.81

## Hose Clamp End Connections



\* 45° Male Flare

## Dust Caps and Dust Plugs Accessories:

Coupling Series	Plug Dust Cap Part No.	Socket Dust Plug Part No.
	Vinyl	Vinyl
100	P-PDC-1-HK	P-SDC-1-HK



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ONE-WAY

TWO-WAY

STRAIGHT-THRU

GAS

ACCESSORIES



# SERIES 600&700



**600 & 700 Series** quick connect couplings are designed for use in oxyacetylene service. Series 600 is used with oxygen. Series 700 is used with acetylene.

## FEATURES

- Ball lock
- Manual operation
- Non-interchangeable designs prevent crossing of lines
- Sleeves are color coded to identify each series:
  - Series 600 sleeves are green for oxygen
  - Series 700 sleeves are red for acetylene
- Series 600 and 700 couplings can also be used with compressed air and other gases
- Sockets with the SL suffix have the sleeve lock feature to prevent accidental disconnection
- Series 600 and 700 couplings with sleeve lock feature comply with OSHA requirements\*, which state couplings shall be the type that cannot be unlocked or disconnected by means of a straight pull without rotary motion.

## APPLICATIONS & MARKETS

- Breathing Equipment
- Welding
- Shipyards
- General Pneumatics
- Construction
- Nitrous Oxide



### Interchangeability

- Proprietary Interchange



### Materials

#### Socket:

- Brass Body
- Brass Valve
- Painted Brass Sleeve
  - Green** - Series 600
  - Red** - Series 700
- Buna-N (Nitrile) Seal
- Stainless Steel Springs
- Stainless Steel Locking Balls

#### Plug:

- Brass



**1/4" nominal (6.35 mm)**



**-40° F to 250° F**

**-40° C to 120° C**



### Pressure Ratings

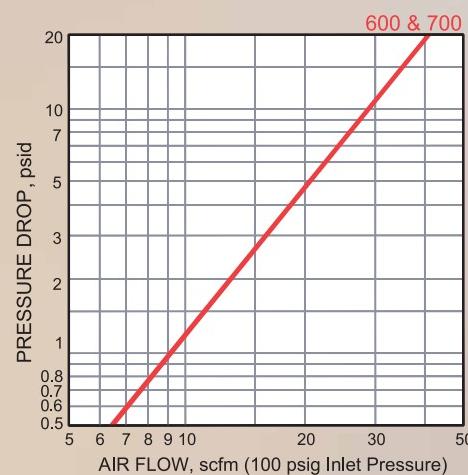
Series	PSI	BAR
600 & 700	1,500	103



### Flow Capacities

Series	†Ac
600 & 700	21

† Air flow (scfm)  
with 5 psi pressure drop and 100 psig inlet pressure.



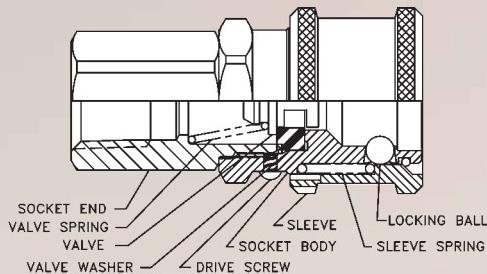
\*29 CFR 1915.55 (f)(5), 1917.152 (d)(3)(iv) and 29 CFR 1926.350 (f)(5)



1/4" Nominal

Tuthill

600 SERIES

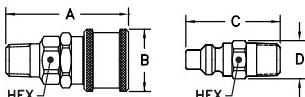


See Fittings on Page 78

## SOCKETS

Part No. - Brass		Thread Size	Dimensions		
Standard	Oxygen Serv.		A	B	HEX
GR-601	GR-601-SL	1/8-27 NPTF	1.84	1.00	0.69
GR-603	GR-603-SL	1/4-18 NPTF	2.03	1.00	0.69
GR-604R†	GR-604R-SL	9/16-18	1.92	1.00	0.69
GR-605	GR-605-SL	3/8-18 NPTF	1.99	1.00	0.69

## Male End Connections

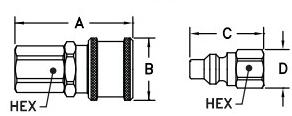


## PLUGS

Part No. - Brass		Thread Size	Dimensions		
Standard	Oxygen Serv.		C	D	HEX
01A		1/8-27 NPTF	1.41	0.63	0.56
03A		1/4-18 NPTF	1.56	0.63	0.56
04-R†		9/16-18	1.41	0.63	0.56

Part No. - Brass		Thread Size	Dimensions		
Standard	Oxygen Serv.		A	B	HEX
GR-600	GR-600-SL	1/8-27 NPTF	1.73	1.00	0.69
GR-602	GR-602-SL	1/4-18 NPTF	1.95	1.00	0.69
GR-604	GR-604-SL	3/8-18 NPTF	2.03	1.00	0.69
GR-605R‡	GR-605R-SL	9/16-18	1.95	1.00	0.69

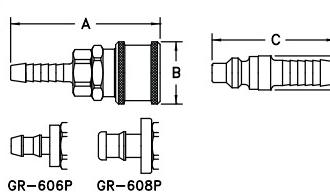
## Female End Connections



Part No. - Brass		Thread Size	Dimensions		
Standard	Oxygen Serv.		C	D	HEX
00A		1/8-27 NPTF	1.22	0.63	0.56
02A		1/4-18 NPTF	1.41	0.77	0.69
05-R‡		9/16-18	1.38	0.77	0.69

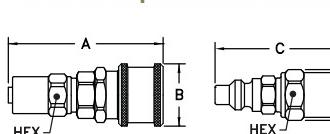
Part No. - Brass		Hose I.D.	Dimensions		
Standard	Oxygen Serv.		A	B	
GR-606	GR-606-SL	1/4"	2.47	1.00	
GR-606P§	GR-606P-SL§	1/4"	2.24	1.00	
GR-607	GR-607-SL	5/16"	2.47	1.00	
GR-608	GR-608-SL	3/8"	2.47	1.00	
GR-608P§	—	3/8"	2.31	1.00	

## Hose Stem End Connections



Part No. - Brass		Hose I.D.	Dimensions			
Standard	Oxygen Serv.	I.D.	O.D.	A	B	HEX
GR-6-0A3	—	3/16"	1/2"	2.49	1.00	0.63
GR-6-0B3	GR-6-0B3-SL	1/4"	1/2"	2.56	1.00	0.63
GR-6-0B5	GR-6-0B5-SL	1/4"	9/16"	2.56	1.00	0.69
GR-6-0B7	GR-6-0B7-SL	1/4"	5/8"	2.56	1.00	0.75
GR-6-0C5	—	5/16"	9/16"	2.62	1.00	0.69
GR-6-0C7	—	5/16"	5/8"	2.62	1.00	0.75
GR-6-0C9	—	5/16"	11/16"	2.62	1.00	0.81
GR-6-0D7	—	3/8"	5/8"	2.68	1.00	0.75
GR-6-0D9	—	3/8"	11/16"	2.68	1.00	0.81
GR-6-0D11	—	3/8"	3/4"	2.68	1.00	0.88

## Hose Clamp End Connections



Part No. - Brass		Hose I.D.	O.D.	Dimensions		
Standard	Oxygen Serv.			C	D	HEX
6-B3		1/4"	1/2"	2.13	0.70	0.63
6-B5		1/4"	9/16"	2.13	0.77	0.69
6-B7		1/4"	5/8"	2.13	0.84	0.75
6-B9		1/4"	11/16"	2.13	0.91	0.81
6-D5		3/8"	9/16"	2.25	0.77	0.69
6-D7		3/8"	5/8"	2.25	0.84	0.75
6-D9		3/8"	11/16"	2.25	0.91	0.81
6-D11		3/8"	3/4"	2.25	0.98	0.88

† R.H. Thread - 30° Female Flare    ‡ R.H. Thread - Inverted Flare    § For use with push-on style hose.

**TO ADD A THIRD NON-INTERCHANGEABLE LINE, USE THE 100 SERIES WITH THE 600 AND 700 SERIES.**



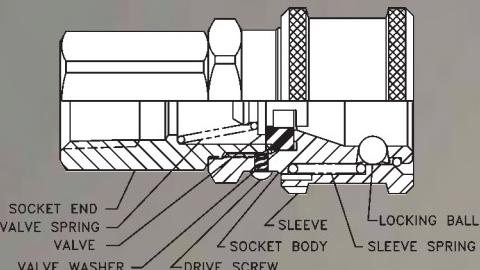
## WARNING

Oxygen increases combustibility. Fire and explosion could occur causing severe bodily injury or death. Be sure to select the proper coupling for your application and use it only within the specified service pressure range.

Series 600 and 700 couplings with sleeve lock feature comply with O.S.H.A. requirements, Sec. 1915.35 (f)(5), 1916.35 (f)(5), 1917.35 (f)(5), and 1926.350 (f)(5).

## SERIES 700

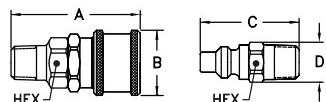
See Fittings on Page 78



## SOCKETS

Part No. - Brass		Thread Size	Dimensions		
Standard	Acetyl. Serv.		A	B	HEX
RD-701	—	1/8-27 NPTF	1.84	1.00	0.69
RD-703	RD-703-SL	1/4-18 NPTF	2.02	1.00	0.69
RD-704L†	RD-704L-SL	9/16-18	1.92	1.00	0.69
RD-705	RD-705-SL	3/8-18 NPTF	1.99	1.00	0.69

## Male End Connections

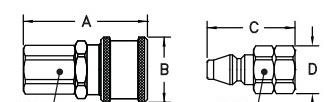


## PLUGS

Part No.		Dimensions		
Brass	Thread Size	C	D	HEX
A1	1/8-27 NPTF	1.47	0.63	0.56
A3P	1/4-18 NPTF	1.63	0.63	0.56
A4-L†	9/16-18	1.50	0.63	0.56

Part No. - Brass		Thread Size	Dimensions		
Standard	Acetyl. Serv.		A	B	HEX
RD-700	RD-700-SL	1/8-27 NPTF	1.73	1.00	0.69
RD-702	RD-702-SL	1/4-18 NPTF	1.95	1.00	0.69
RD-704	RD-704-SL	3/8-18 NPTF	2.03	1.00	0.69
RD-705L‡	RD-705L-SL	9/16-18	1.95	1.00	0.69

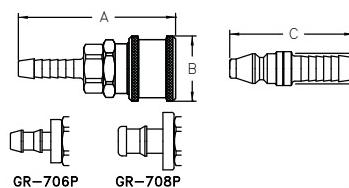
## Female End Connections



Part No.		Dimensions		
Brass	Thread Size	C	D	HEX
A2	1/4-18 NPTF	1.46	0.77	0.69
A5-L‡	9/16-18	1.38	0.77	0.69

Part No. - Brass		Hose I.D.	Dimensions	
Standard	Acetyl. Serv.	I.D.	A	B
RD-706	RD-706-SL	1/4"	2.47	1.00
RD-706P§	—	1/4"	2.24	1.00
RD-707	RD-707-SL	5/16"	2.47	1.00
RD-708	RD-708-SL	3/8"	2.47	1.00

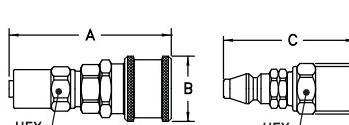
## Hose Stem End Connections



Part No.		Dimensions	
Brass	Hose I.D.	C	D
A7	1/4"	2.06	0.56
A8	5/16"	2.06	0.56
A9	3/8"	2.10	0.56

Part No. - Brass		Hose	Dimensions		
Standard	Acetyl. Serv.	I.D.	O.D.	A	HEX
RD-7-0A3	—	3/16"	1/2"	2.49	1.00
RD-7-0B3	RD-7-0B3-SL	1/4"	1/2"	2.56	1.00
RD-7-0B5	RD-7-0B5-SL	1/4"	9/16"	2.56	1.00
RD-7-0B7	—	1/4"	5/8"	2.56	1.00
RD-7-0D7	—	3/8"	5/8"	2.68	1.00
RD-7-0D9	—	3/8"	11/16"	2.68	1.00
RD-7-0D11	—	3/8"	3/4"	2.68	1.00

## Hose Clamp End Connections



Part No.		Dimensions		
Brass	I.D.	O.D.	C	D
7-B3	1/4"	1/2"	2.19	0.70
7-B5	1/4"	9/16"	2.19	0.77
7-B7	1/4"	5/8"	2.19	0.84
7-B11	1/4"	3/4"	2.19	0.98

† L.H. Thread - 30° Female Flare    ‡ L.H. Thread - Inverted Flare    § For use with push-on style hose.

## Dust Caps and Dust Plugs Accessories:

Coupling Series	Plug Dust Cap Part No.	Socket Dust Plug Part No.
1000	P-PDC-1-HK	P-SDC-1-HK
400	P-PDC-1-HK	P-SDC-1-HK





1/4" Nominal

# 2RL&3RL SERIES



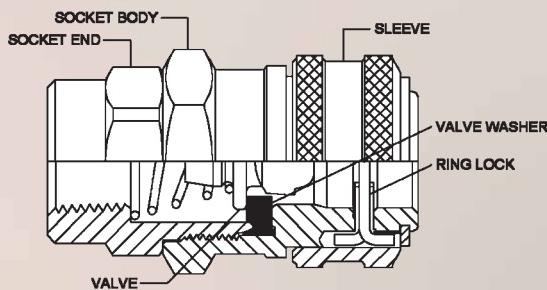
**2RL & 3RL Ring Lock** quick connect couplings have a unique interchange which Hansen designed for use with compressed air. Body sizes are 1/4" and 3/8".

## FEATURES

- High flow capacity
- Push to connect
- Ring lock
- Will not disconnect when hose is dragged on the ground
- Rotate locking sleeve approximately 20° to disconnect
- Optional seal materials available

## APPLICATIONS & MARKETS

- Shipyards
- General Pneumatics
- Mining
- Marine



### Interchangeability

- Proprietary Interchange



### Materials

#### Socket:

- Zinc Plated Steel Body
- Brass Socket End
- Nickel Plated Steel Sleeve
- Zinc Plated Steel Valve
- Buna-N (Nitrile) Seal
- Stainless Steel Spring
- Zinc Plated Steel Locking Ring

#### Plug:

- Zinc Plated Case-Hardened Steel



**1/4" to 3/8" nominal  
(6.35 mm to 9.52 mm)**



**-40° F to 250° F  
-40° C to 120° C**



### Rated Pressure

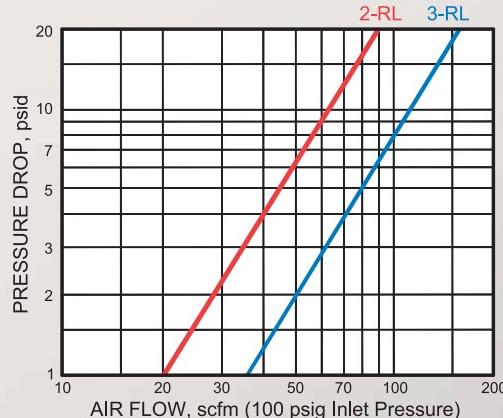
Series	Size	PSI	BAR
2-RL	1/4"	300	20
3-RL	3/8"	300	20



### Flow Capacity

Series	† Ac
2-RL	48
3-RL	80

† Air flow (scfm)  
with 5 psi pressure drop and 100 psig inlet pressure.



ONE-WAY

TWO-WAY

STRAIGHT-THRU

GAS

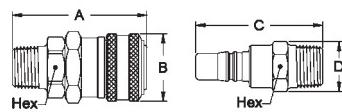
ACCESSORIES

# SERIES 2RL

## SOCKETS

Part No.	Thread Size	Dimensions		
		A	B	HEX
2-R10	1/8-27 NPTF	2.01	1.06	0.88
2-R15	1/4-18 NPTF	2.16	1.06	0.88
2-R20	3/8-18 NPTF	2.16	1.06	0.88
2-R25	1/2-14 NPTF	2.35	1.06	0.88

### Male End Connections

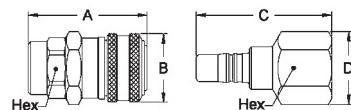


## PLUGS

Part No.	Thread Size	Dimensions		
		C	D	HEX
2-L10	1/8-27 NPTF	1.51	0.58	0.50
2-L15	1/4-18 NPTF	1.66	0.65	0.56
2-L15G†	1/4-18 NPTF	2.64	0.77	0.69
2-L20	3/8-18 NPTF	2.04	0.79	0.69
2-L20G†	3/8-18 NPTF	2.64	0.77	0.69
2-L25	1/2-14 NPTF	2.31	1.01	0.88

Part No.	Thread Size	Dimensions		
		A	B	HEX
2-R11	1/8-27 NPTF	1.91	1.06	0.88
2-R16	1/4-18 NPTF	1.91	1.06	0.88
2-R21	3/8-18 NPTF	2.16	1.06	0.88
2-R26	1/2-14 NPTF	2.43	1.06	1.00

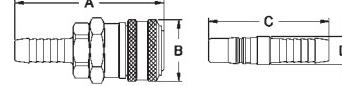
### Female End Connections



Part No.	Thread Size	Dimensions		
		C	D	HEX
2-L11	1/8-27 NPTF	1.36	0.65	0.56
2-L16	1/4-18 NPTF	1.54	0.79	0.69
2-L16G†	1/4-18 NPTF	2.55	0.77	0.69
2-L21	3/8-18 NPTF	1.88	0.94	0.81
2-L26	1/2-14 NPTF	2.18	1.15	1.00

Part No.	Hose I.D.	Dimensions	
		A	B
2-R17	1/4"	2.63	1.06
2-R195	5/16"	2.63	1.06
2-R22	3/8"	2.63	1.06
2-R27	1/2"	2.63	1.06

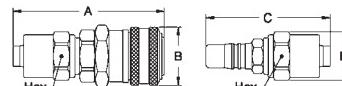
### Hose Stem End Connections



Part No.	Hose I.D.	Dimensions	
		C	D
2-L17	1/4"	2.13	0.56
2-L195	5/16"	2.13	0.56
2-L22	3/8"	2.13	0.56
2-L27	1/2"	2.50	0.81

Part No.	Hose		Dimensions		
	I.D.	O.D.	A	B	HEX
2-R18B1	1/4"	15/32"	2.73	1.06	0.63
2-R18B3	1/4"	1/2"	2.73	1.06	0.63
2-R18B5	1/4"	9/16"	2.73	1.06	0.69
2-R18B7	1/4"	5/8"	2.73	1.06	0.75
2-R18B9	1/4"	11/16"	2.73	1.06	0.81
2-R18B11	1/4"	3/4"	2.73	1.06	0.88
2-R18C5	5/16"	9/16"	2.79	1.06	0.69
2-R18C7	5/16"	5/8"	2.79	1.06	0.75
2-R18C9	5/16"	11/16"	2.79	1.06	0.81
2-R23D5	3/8"	9/16"	2.85	1.06	0.69
2-R23D7	3/8"	5/8"	2.85	1.06	0.75
2-R23D9	3/8"	11/16"	2.85	1.06	0.81
2-R23D11	3/8"	3/4"	2.85	1.06	0.88
2-R23D13	3/8"	13/16"	2.85	1.06	0.94
2-R28P13	1/2"	13/16"	3.48	1.06	0.94
2-R28P15	1/2"	7/8"	3.48	1.06	1.00

### Hose Clamp End Connections



Part No.	Hose		Dimensions		
	I.D.	O.D.	C	D	HEX
2-L18B1	1/4"	15/32"	2.23	0.70	0.63
2-L18B3	1/4"	1/2"	2.23	0.70	0.63
2-L18B5	1/4"	9/16"	2.23	0.77	0.69
2-L18B7	1/4"	5/8"	2.23	0.84	0.75
2-L18B9	1/4"	11/16"	2.23	0.91	0.81
2-L18B11	1/4"	3/4"	2.23	0.98	0.88
2-L18C5	5/16"	9/16"	2.29	0.77	0.69
2-L18C7	5/16"	5/8"	2.29	0.84	0.75
2-L18C9	5/16"	11/16"	2.29	0.91	0.81
2-L23D5	3/8"	9/16"	2.35	0.77	0.69
2-L23D7	3/8"	5/8"	2.35	0.84	0.75
2-L23D9	3/8"	11/16"	2.35	0.91	0.81
2-L23D11	3/8"	3/4"	2.35	0.98	0.88
2-L23D13	3/8"	13/16"	2.35	1.05	0.94
2-L28P13	1/2"	13/16"	3.41	1.05	0.94
2-L28P15	1/2"	7/8"	3.41	1.12	1.00

† With Bleeder Ball Check – Reduces hose whip when disconnecting.

## Dust Caps and Dust Plugs Accessories:

Coupling Series	Plug Dust Cap Part No.	Socket Dust Plug Part No.
2-RL	P-PDC-1-HK	P-SDC-1-HK
3-RL	P-PDC-2-HK	P-SDC-2-HK



**Optional Seal Materials:** 138-Silicone, 143-Fluorocarbon, 192-EPDM



1/4" Nominal

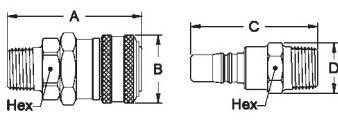
Tuthill

## 3RL SERIES

## SOCKETS

Part No.	Thread Size	Dimensions		
		A	B	HEX
3-R15	1/4-18 NPTF	2.34	1.31	1.00
3-R20	3/8-18 NPTF	2.35	1.31	1.00
3-R25	1/2-14 NPTF	2.54	1.31	1.00
3-R30	3/4-14 NPTF	2.54	1.31	1.06

## Male End Connections

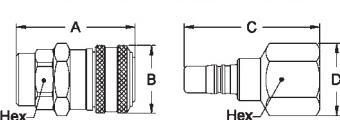


## PLUGS

Part No.	Steel	Thread Size	Dimensions		
			C	D	HEX
3-L10		1/8-27 NPTF	1.54	0.72	0.63
3-L15		1/4-18 NPTF	1.70	0.72	0.63
3-L15G†		1/4-18 NPTF	2.64	0.98	0.88
3-L20		3/8-18 NPTF	1.76	0.79	0.69
3-L20G†		3/8-18 NPTF	2.64	0.98	0.88
3-L25		1/2-14 NPTF	2.31	1.01	0.88
3-L25G†		1/2-14 NPTF	2.83	0.98	0.88
3-L30		3/4-14 NPTF	2.38	1.23	1.06
3-L30G†		3/4-14 NPTF	2.88	1.19	1.06

Part No.	Thread Size	Dimensions		
		A	B	HEX
3-R16	1/4-18 NPTF	2.29	1.31	1.00
3-R21	3/8-18 NPTF	2.35	1.31	1.00
3-R26	1/2-14 NPTF	2.63	1.31	1.00
3-R31A	3/4-14 NPTF	2.66	1.31	1.19

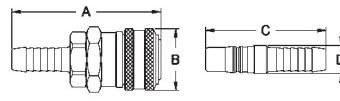
## Female End Connections



Part No.	Steel	Thread Size	Dimensions		
			C	D	HEX
3-L16		1/4-18 NPTF	1.48	0.79	0.69
3-L16G†		1/4-18 NPTF	2.39	0.98	0.88
3-L21		3/8-18 NPTF	1.63	0.94	0.81
3-L21G†		3/8-18 NPTF	2.64	0.98	0.88
3-L26		1/2-14 NPTF	2.25	1.15	1.00
3-L26G†		1/2-14 NPTF	2.91	0.98	0.88
3-L31		3/4-14 NPTF	2.25	1.37	1.19

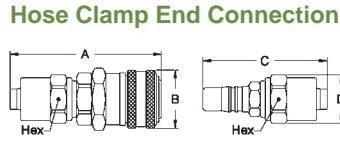
Part No.	Hose I.D.	Dimensions	
		A	B
3-R17	1/4"	2.82	1.31
3-R195	5/16"	2.85	1.31
3-R22	3/8"	2.89	1.31
3-R27	1/2"	2.81	1.31
3-R32	3/4"	3.66	1.31

## Hose Stem End Connections



Part No.	Steel	Hose I.D.	Dimensions	
			C	D
3-L17		1/4"	2.16	0.63
3-L195		5/16"	2.16	0.63
3-L195G†		5/16"	3.11	0.98
3-L22		3/8"	2.16	0.75
3-L22G†		3/8"	3.11	0.98
3-L27		1/2"	2.16	0.81
3-L27G†		1/2"	3.11	0.98
3-L32		3/4"	3.13	1.00
3-L32G†		3/4"	3.96	0.98

Part No.	Hose		Dimensions		
	I.D.	O.D.	A	B	HEX
3-R23D7	3/8"	5/8"	3.06	1.31	0.75
3-R23D9	3/8"	11/16"	3.06	1.31	0.81
3-R23D11	3/8"	3/4"	3.06	1.31	0.88
3-R23D13	3/8"	13/16"	3.06	1.31	0.94
3-R28P13	1/2"	13/16"	3.66	1.31	0.94
3-R28P15	1/2"	7/8"	3.66	1.31	1.00
3-R28P17	1/2"	15/16"	3.66	1.31	1.06
3-R33R23	3/4"	1 1/8"	3.79	1.31	1.25
3-R33R25	3/4"	1 3/16"	3.79	1.31	1.31
3-R33R27	3/4"	1 1/4"	3.79	1.31	1.38



Part No.	Hose	I.D.	O.D.	Dimensions		
				C	D	HEX
3-L23D7	3/8"	5/8"	2.45	0.84	0.75	
3-L23D9	3/8"	11/16"	2.45	0.91	0.81	
3-L23D11	3/8"	3/4"	2.45	0.98	0.88	
3-L23D13	3/8"	13/16"	2.45	1.05	0.94	
3-L28P13	1/2"	13/16"	3.14	1.05	0.94	
3-L28P15	1/2"	7/8"	3.14	1.12	1.00	
3-L28P17	1/2"	15/16"	3.14	1.19	1.06	
3-L28P19	1/2"	1"	3.14	1.26	1.13	
3-L33R23	3/4"	1 1/8"	3.56	1.40	1.25	
3-L33R25	3/4"	1 3/16"	3.56	1.47	1.31	
3-L33R27	3/4"	1 1/4"	3.56	1.54	1.38	

† With Bleeder Ball Check – Reduces hose whip when disconnecting.

Optional Seal Materials: 143-Fluorocarbon

# SERIES FULL-BORE



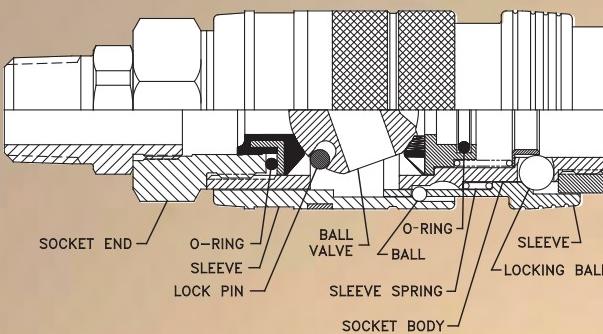
**The Full-Bore Series** is a premium automatic one-way shutoff coupling. Two sleeves must be actuated in sequence to bleed off back pressure and release the connector, preventing accidental uncoupling. Available in 3/8" and 1/2" capacities.

## FEATURES

- Pressure relieving feature fully vents downstream air, making connection/disconnection fast and easy, and eliminating hose whip
- Unique straight-through design eliminates restrictive springs and poppet valves, allowing unimpeded air flow
- Two-sleeve activation prevents accidental disconnect

## APPLICATIONS & MARKETS

- Construction
- Maintenance & Repair
- In-Plant/Industrial
- Railyards
- General Pneumatics



### Interchangeability

All Sizes	1/2" only
Industrial Interchange	A-A-59439 (former MIL-C-4109)

### Materials

#### Socket:

- Carbon Steel
- Hard Drawn Steel Spring
- Buna-N Valve
- Stainless Steel Locking Balls

#### Plug:

- Carbon Steel



**3/8" to 1/2" nominal  
(9.52 mm to 12.70 mm)**



**-40° F to 200° F  
-40° C to 93° C**



**Rated Pressure  
250 psig (17 Bar)**



### Flow Capacity

Size	Ac †
3/8"	63 cfm
1/2"	101 cfm

† Air flow (scfm)  
with 5 psig  
pressure drop  
and 100 psig inlet  
pressure.

PRESSURE DROP VS. AIR FLOW  
(100 psig inlet pressure)





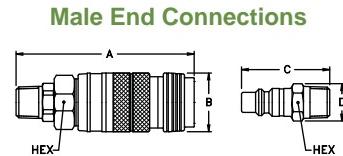
ARO Industrial Interchange

Tuthill

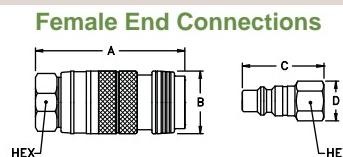
# FULL-BORE SERIES

## 3/8" SOCKETS

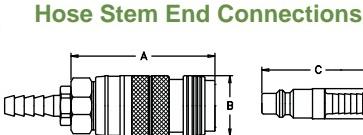
Part No. Steel	Thread Size	Dimensions		
		A	B	HEX
23203-013	3/8" NPT	3.80	1.25	1.00
23203-014	1/2" NPT	2.80	1.25	1.00



Part No. Steel	Thread Size	Dimensions		
		A	B	HEX
23203-300	3/8" NPT	3.17	1.25	1.00
23203-004	1/2" NPT	3.92	1.25	1.00



Part No. Steel	Hose I.D.	Dimensions	
		A	B
23203-024	3/8"	4.36	1.25
23203-025	1/2"	4.48	1.25



## PLUGS

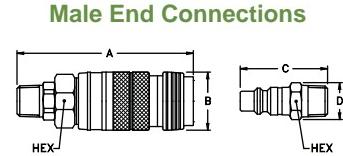
Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
40	1/4" NPT	1.88	0.72	0.63
42	3/8" NPT	1.88	0.79	0.69
44	1/2" NPT	2.09	1.01	0.88

Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
41	1/4" NPT	1.63	0.79	0.69
43	3/8" NPT	1.81	0.94	0.81
45	1/2" NPT	2.06	1.15	1.00

Part No. Steel	Hose I.D.	Dimensions	
		C	D
404	1/4"	2.34	0.63
406	3/8"	2.34	0.63
408	1/2"	2.34	0.81

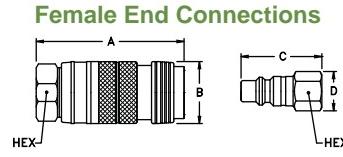
## 1/2" SOCKETS

Part No. Steel	Thread Size	Dimensions		
		A	B	HEX
23204-014	1/2" NPT	4.43	1.38	1.13
23204-015	3/4" NPT	4.67	1.38	1.13



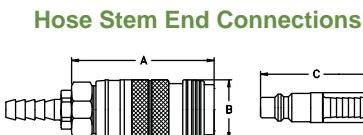
Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
52	3/8" NPT	2.25	0.87	0.75
54	1/2" NPT	2.44	1.01	0.88
56	3/4" NPT	2.50	1.23	1.06

Part No. Steel	Thread Size	Dimensions		
		A	B	HEX
23204-400	1/2" NPT	3.31	1.38	1.13
23204-005	3/4" NPT	3.30	1.38	1.13



Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
53	3/8" NPT	2.06	0.94	0.81
55	1/2" NPT	2.34	1.15	1.00
57	3/4" NPT	2.44	1.37	1.19

Part No. Steel	Hose I.D.	Dimensions	
		A	B
23204-025	1/2"	4.15	1.38
23204-026	3/4"	4.15	1.38



Part No. Steel	Hose I.D.	Dimensions	
		C	D
59	3/8"	2.66	0.69
60	1/2"	2.66	0.75
61	3/4"	3.50	1.00

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ONE-WAY

TWO-WAY

GAS

ACCESORIES

# SERIES 210&310



## The 210 and 310 Interchange Series

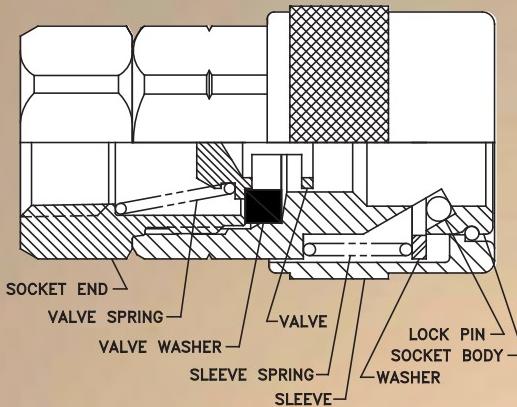
are 1/4" and 3/8" capacity automatic, pin-type couplings designed for one-way shutoff operation.

### FEATURES

- Automatic push-to-connect
- Pin-lock design

### APPLICATIONS & MARKETS

- Construction
- Maintenance & Repair
- In-Plant/Industrial
- Pneumatic Tools



#### Interchangeability

- ARO Interchange



#### Materials

Socket:

- Carbon Steel
- Hard Drawn Steel Spring
- Buna-N Valve Washer
- Alloy Steel Locking Pins

Plug:

- Carbon Steel



**1/4" to 3/8" nominal  
(6.35 mm to 9.52 mm)**



**-40° F to 200° F**

**-40° C to 93° C**

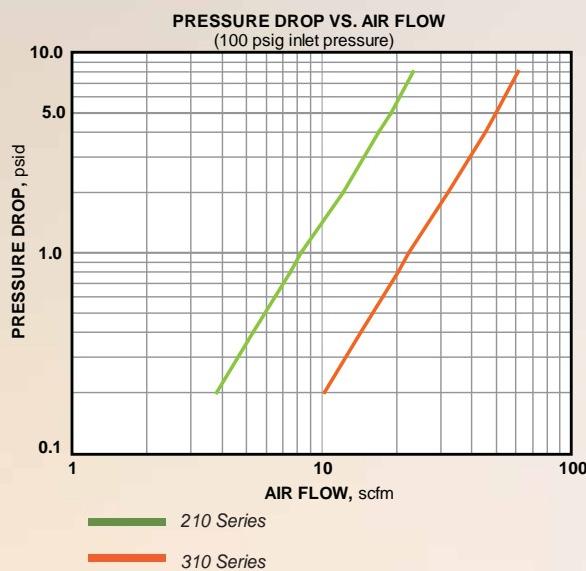


**Rated Pressure  
250 psig (17 Bar)**

#### Flow Capacity

Series	Ac †
210	19 cfm
310	50 cfm

† Air flow (scfm)  
with 5 psig  
pressure drop  
and 100 psig inlet  
pressure.





ARO Industrial Interchange

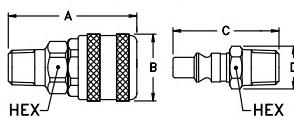
Tuthill

# 210&310 SERIES

## 210 SERIES SOCKETS

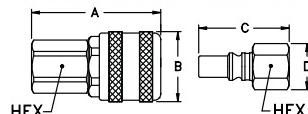
Part No. Steel	Thread Size	Dimensions		
		A	B	HEX
210-212	1/4" NPT	1.95	1.02	0.69
210-213	3/8" NPT	1.91	1.02	0.69

### Male End Connections



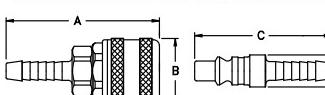
Part No. Steel	Thread Size	Dimensions		
		A	B	HEX
210	1/4" NPT	1.87	1.02	0.69
62210*	1/4" NPT	1.87	1.02	0.69

### Female End Connections



Part No. Steel	Hose I.D.	Dimensions	
		A	B
210-022	1/4"	2.39	1.02
210-215	3/8"	2.39	1.02

### Hose Stem End Connections



Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
2607	1/8" NPT	1.42	0.58	0.50
2608	1/4" NPT	1.68	0.65	0.56

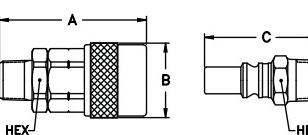
Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
2609	1/4" NPT	1.55	0.79	0.69

\* Same as Model 210 but with brass valve

## 310 SERIES SOCKETS

Part No. Steel	Thread Size	Dimensions		
		A	B	HEX
310-313	3/8" NPT	2.38	1.21	0.94

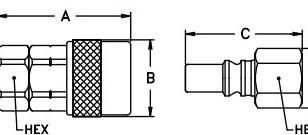
### Male End Connections



Part No. Steel	Thread Size	Dimensions		
		D	E	HEX
22239	1/4" NPT	1.91	0.72	0.63
3804	3/8" NPT	1.91	0.79	0.69

Part No. Steel	Thread Size	Dimensions		
		A	B	HEX
310	3/8" NPT	2.10	1.21	0.94

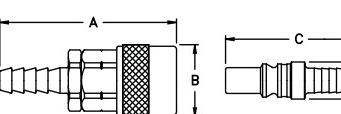
### Female End Connections



Part No. Steel	Thread Size	Dimensions		
		D	E	HEX
3806	3/8" NPT	1.84	0.94	0.81

Part No. Steel	Hose I.D.	Dimensions	
		A	B
310-222	3/8"	2.97	1.21

### Hose Stem End Connections



Part No. Steel	Hose I.D.	Dimensions	
		C	D
3807	3/8"	2.37	0.63

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## SERIES MS



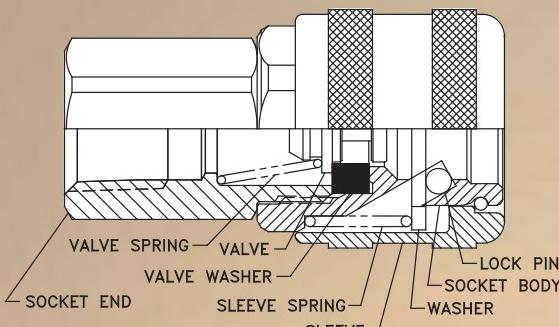
**The MS Series** is an economical automatic one-way shutoff coupling. With steel pins securing the mating connector, the MS Series is available in 1/4" capacity.

## FEATURES

- Automatic push-to-connect
- Pin-lock design

## APPLICATIONS & MARKETS

- Construction
- Maintenance & Repair
- In-Plant/Industrial
- Pneumatic Tools



### Interchangeability

- Industrial Interchange
- A-A-59439 (former MIL-C-4109)

### Materials

Socket:

- Carbon Steel
- Hard Drawn Steel Spring
- Buna-N Valve Washer
- Alloy Steel Locking Pins

Plug:

- Carbon Steel



**1/4" nominal (6.35 mm)**



**-40° F to 200° F  
-40° C to 93° C**



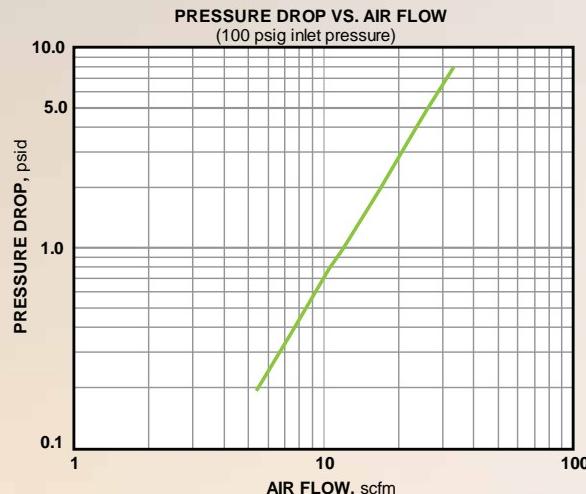
**Rated Pressure  
250 PSIG (17 Bar)**



### Flow Capacity

Series	Ac †
MS	26 cfm

† Air flow (scfm)  
with 5 psig  
pressure drop  
and 100 psig inlet  
pressure.



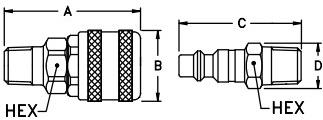


## MS SERIES

## SOCKETS

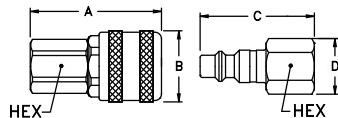
Part No. Steel	Thread Size	Dimensions		
		A	B	HEX
MSCM22-000	1/4" NPT	1.95	1.02	0.69
MSCM23-000	3/8" NPT	1.91	1.02	0.69

## Male End Connections



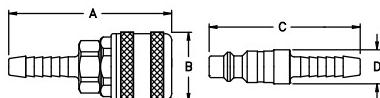
Part No. Steel	Thread Size	Dimensions		
		A	B	HEX
MSCF22-000	1/4" NPT	1.95	1.02	0.69
MSCM23-000	3/8" NPT	1.95	1.02	0.69

## Female End Connections



Part No. Steel	Hose I.D.	Dimensions	
		A	B
MSCH22-000	1/4"	2.39	1.02
MSCH23-000	3/8"	2.39	1.02

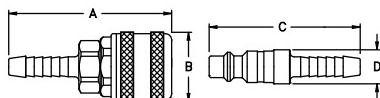
## Hose Stem End Connections



Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
10	1/4" NPT	1.75	0.65	0.56
12	1/8" NPT	1.59	0.58	0.50
14	3/8" NPT	1.75	0.79	0.69

Part No. Steel	Thread Size	Dimensions		
		C	D	HEX
11	1/4" NPT	1.63	0.79	0.69
13	1/8" NPT	1.47	0.65	0.56
15	3/8" NPT	1.69	0.94	0.81

## Hose Stem End Connections



Part No. Steel	Hose I.D.	Dimensions	
		C	D
16	1/4"	2.22	0.50
17	3/8"	2.22	0.50

ONE-WAY

TWO-WAY

STRAIGHT-THRU

GAS

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TWO-  
WAY



# Contents and Selector Chart



Coupling Series	Page	Coupling Style			Body Size					Body Material			Locking Mechanism		Options									
		MANUAL CONNECT	PUSH-TO-CONNECT	SAFETY COUPLING	1/8 INCH	1/4 INCH	3/8 INCH	1/2 INCH	3/4 INCH	1 INCH	1 1/4 INCH	1 1/2 INCH	2 1/4 INCH	BRASS	STEEL (Zinc/chromate Finish)	STAINLESS STEEL (303)	STAINLESS STEEL (316)	PLASTIC (Polypropylene)	BALL LOCK	THREADED SLEEVE	PLASTIC FINGERS	SLEEVE LOCK	SEAL MATERIALS (Various)	DUST CAP/PLUG
1-HK	47	●				●								●	●	●	●	●	●			●	●	●
2-HK	47	●				●								●	●	●	●	●	●			●	●	●
P2-HK	47	●				●												●				●	●	●
3-HK	47	●					●							●	●	●	●	●	●			●	●	●
4-HKP	47	●						●						●	●	●	●	●	●			●	●	●
6-HKP	47	●							●					●	●	●	●	●	●			●	●	●
8-HKP	47	●								●				●	●	●	●	●	●			●	●	●
10-HK	50	●									●			●	●	●	●	●	●			●	●	●
12-HK	50	●										●		●	●	●	●	●	●			●	●	●
20-HK	50	●											●	●	●	●	●	●	●			●	●	●
HKFR	52	●							●	●	●					●	●			●		●	★	●
HA 15000	54	●						●	●	●	●	●				●				●				●
FF	56/57		●	●			●	●	●	●	●	●				●				●		●	★	●
96	58	●		●					●	●	●			●						●				
UP10	60	●					●									●				●		●	★	●
WA 56000	61	●						●							●					●				●
2-HKIG	63	●						●								●				●				●
2-HKIL	63	●															●			●				●
DB	64		●	●	●		●	●	●	●	●	●					●			●				●

★ Sleeve Lock is Standard

ONE-WAY

TWO-WAY

STRAIGHT-THRU

GAS

ACCESSORIES



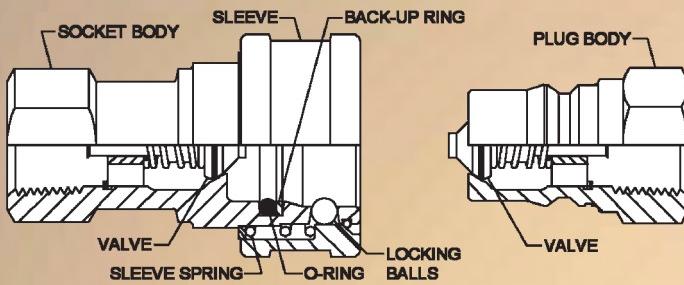
**Series HK Couplings** are the most versatile couplings available and are suitable for use with various liquids, chemicals, steam, gases and vacuum. Series HK couplings conform to the dimensional requirements of ISO 7241-1 Series B. Body sizes range from 1/8" to 1".

## FEATURES

- The coupling that set the industry standard
- Multiple options make the HK our most versatile coupling series available
- Brass, steel and stainless steel construction available in all sizes; 1/4" body size is also available in polypropylene
- End connections are female NPTF, BSPP and SAE o-ring boss
- Heavy duty steel couplings for use in high impulse service available in most sizes
- Steam coupling available in 3/8" body size

## APPLICATIONS & MARKETS

- |                    |                              |                     |
|--------------------|------------------------------|---------------------|
| • Agriculture      | • Military                   | • HVAC              |
| • Hydraulic Tool   | • Law Enforcement/<br>Rescue | • Food and Beverage |
| • General Industry | • Chemical                   | • Trucks            |
| • Construction     | • Oil and Gas                | • Aerospace         |
| • Fluid Transfer   | • Consumer Products          | • Medical           |



### Interchangeability

- ISO 7241-1 Series B



### Materials

- Brass, zinc-plated steel, stainless steel or polypropylene (1/4" only) construction
- Stainless steel spring, balls and retaining ring
- Buna-N (Nitrile) seal
- PTFE back-up rings in steel and stainless steel sockets



**1/8" to 1" nominal**  
(4.4 mm to 25.4 mm)



**-40° F to 250° F**  
**-40° C to 121° C**  
(with standard seal)



### Rated Pressure Chart

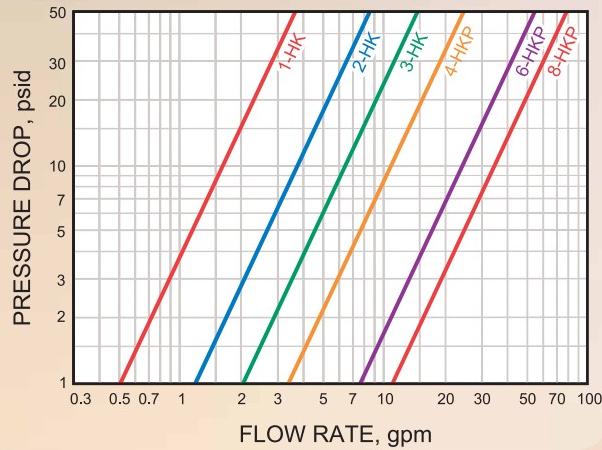
Part Number	Body Size inches (mm)	Brass		Steel		Stainless Steel	
		PSI	BAR	PSI	BAR	PSI	BAR
1-HK	1/8 (4.4)	3,000	207	4,000	275	5,000	344
2-HK	1/4 (5.9)	2,700	345	5,000	255	3,700	255
3-HK	3/8 (7.8)	2,200	152	3,700	255	3,700	255
4-HKP	1/2 (10)	2,250	155	5,000	345	4,250	293
6-HKP	3/4 (17)	2,000	138	4,000	275	3,500	242
8-HKP	1 (19.6)	1,500	103	4,000	275	3,000	207

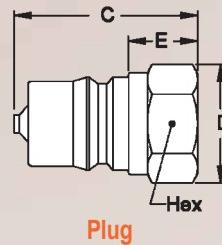
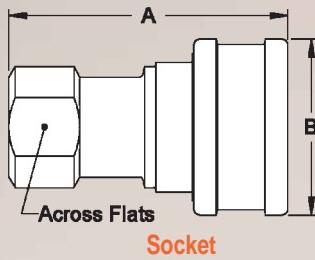
Part Number	Body Size inches (mm)	Polypropylene		Temperature Range	
		PSI	BAR		
P2-HK	1/4 (5.9)	50	4	+35° F to 150° F	



### Flow Capacity



1-HK TO 8-HK HK SERIES



## SOCKETS

Body Size (inch)	Brass	Part Number				Thread Size (female)			Dimensions (inches)		
		Steel		Stainless Steel		NPTF	BSPP	SAE	A	B	Across Flats
		Standard	High Impulse	303	316						
1/8	B1-H11	1-H11	—	LL1-H11	ML1-H11	1/8-27	—	—	1.91	0.98	0.56
1/8	—	1-H4	—	LL1-H4	—	—	—	—	7/16-20	2.06	0.98
1/4	B2-H16	2-H16	2-H16	LL2-H16	ML2-H16	1/4-18	—	—	2.26	1.14	0.75
1/4	B2-H16BS	2-H16BS	2-H16BS	LL2-H16BS	ML2-H16BS	—	1/4-19	—	2.31	1.14	0.75
1/4	—	2-H6	2-H6	LL2-H6	—	—	—	—	9/16-18	2.40	1.14
3/8	B3-H21	3-H21	3-H21C	LL3-H21	ML3-H21	3/8-18	—	—	2.56	1.42	0.88
3/8	B3-H21BS	3-H21BS	—	LL3-H21BS	ML3-H21BS	—	3/8-19	—	2.56	1.42	0.88
3/8	—	3-H8	3-H8C	LL3-H8	—	—	—	—	3/4-16	2.74	1.42
1/2	B4-HP26	4-HP26	4-HP26	LL4-HP26	ML4-HP26	1/2-14	—	—	2.96	1.86	1.13
1/2	B4-HP26BS	4-HP26BS	4-HP26BS	LL4-HP26BS	ML4-HP26BS	—	1/2-14	—	2.96	1.86	1.13
1/2	—	4-HP10	4-HP10	LL4-HP10	—	—	—	—	7/8-14	3.05	1.86
3/4	B6-HP31	6-HP31	6-HP31	LL6-HP31	ML6-HP31	3/4-14	—	—	3.48	2.22	1.31
3/4	B6-HP31BS	6-HP31BS	6-HP31BS	LL6-HP31BS	ML6-HP31BS	—	3/4-14	—	3.48	2.22	1.31
3/4	—	6-HP12	6-HP12	LL6-HP12	—	—	—	—	11/16-12	3.67	2.22
1	B8-HP36	8-HP36	8-HP36	LL8-HP36	ML8-HP36	1-1½	—	—	4.13	2.61	1.75
1	B8-HP36BS	8-HP36BS	8-HP36BS	LL8-HP36BS	ML8-HP36BS	—	1-11	—	4.13	2.61	1.75
1	—	8-HP16	8-HP16	LL8-HP16	—	—	—	—	15/16-12	4.13	2.61
											1.88

A = Overall Length   B = Maximum Diameter

## PLUGS

Body Size (inch)	Brass	Part Number				Thread Size (female)			Dimensions (inches)		
		Steel		Stainless Steel		NPTF	BSPP	SAE	C	D	E
		Standard	High Impulse	303	316						
1/8	B1-K11	1-K11	—	LL1-K11	ML1-K11	1/8-27	—	—	1.26	0.65	0.44
1/8	—	1-K4	—	LL1-K4	—	—	—	—	7/16-20	1.41	0.59
1/4	B2-K16	2-K16	2-K16C	LL2-K16	ML2-K16	1/4-18	—	—	1.52	0.87	0.56
1/4	B2-K16BS	2-K16BS	—	LL2-K16BS	ML2-K16BS	—	1/4-19	—	1.52	0.87	0.56
1/4	—	2-K6	2-K6C	LL2-K6	—	—	—	—	9/16-18	1.66	1.01
3/8	B3-K21	3-K21	3-K21C	LL3-K21	ML3-K21	3/8-18	—	—	1.76	1.01	0.61
3/8	B3-K21BS	3-K21BS	—	LL3-K21BS	ML3-K21BS	—	3/8-19	—	1.76	1.01	0.61
3/8	—	3-K8	3-K8C	LL3-K8	—	—	—	—	3/4-16	1.94	1.15
1/2	B4-KP26	4-KP26	4-KP26	LL4-KP26	ML4-KP26	1/2-14	—	—	2.03	1.30	0.76
1/2	B4-KP26BS	4-KP26BS	4-KP26BS	LL4-KP26BS	ML4-KP26BS	—	1/2-14	—	2.03	1.30	0.76
1/2	—	4-KP10	4-KP10	LL4-KP10	—	—	—	—	7/8-14	2.11	1.37
3/4	B6-KP31	6-KP31	6-KP31	LL6-KP31	ML6-KP31	3/4-14	—	—	2.36	1.52	0.71
3/4	B6-KP31BS	6-KP31BS	6-KP31BS	LL6-KP31BS	ML6-KP31BS	—	3/4-14	—	2.36	1.52	0.71
3/4	—	6-KP12	6-KP12	LL6-KP12	—	—	—	—	11/16-12	2.54	1.59
1	B8-KP36	8-KP36	8-KP36	LL8-KP36	ML8-KP36	1-11½	—	—	2.85	1.88	0.97
1	B8-KP36BS	8-KP36BS	8-KP36BS	LL8-KP36BS	ML8-KP36BS	—	1-11	—	2.85	1.88	0.97
1	—	8-KP16	8-KP16	LL8-KP16	—	—	—	—	15/16-12	2.85	2.17
											1.88

C = Overall Length   D = Maximum Diameter   E = Exposed Length when Connected

## Dust Caps and Dust Plugs Accessories:

Coupling Series	Plug Dust Cap Part No.		Socket Dust Plug Part No.	
	Metal	Vinyl	Metal	Vinyl
1-HK	PDC-1-HK*	P-PDC-1-HK	SDC-1-HK*	P-SDC-1-HK
2-HK	PDC-2-HK*	P-PDC-2-HK	SDC-2-HK*	P-SDC-2-HK
3-HK	PDC-3-HK*	P-PDC-3-HK	SDC-3-HK*	P-SDC-3-HK
4-HK	PDC-4-HK**	P-PDC-4-HK	SDC-4-HK**	P-SDC-4-HK
6-HK	PDC-6-HK**	P-PDC-6-HK	SDC-6-HK**	P-SDC-6-HK
8-HK	PDC-8-HK**	P-PDC-8-HK	SDC-8-HK**	P-SDC-8-HK

\* Brass   \*\* Aluminum



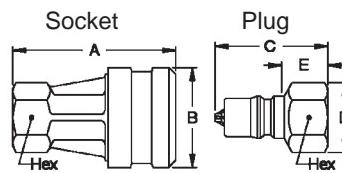
**OPTIONS**

- Non-valved socket and plug
- Bleeder-style plug
- Valve actuator in socket or plug
- Sleeve lock
- Seals: PTFE, Neoprene, Fluorocarbon, Buna-N, EPDM and Kalrez (see Elastomer Selection Guide, page 82)

**Series P2-HK Plastic Coupling**

The Series P2-HK coupling is intended for use with air, water and various chemicals at low pressure. It is designed for use where an economical, light weight, corrosion resistant coupling is desired. All components, except springs and seals, are molded from natural polypropylene with a UV inhibitor. Valve springs are 316 stainless steel. Fluorocarbon seals are standard. EPDM seals are optional.

Part No.	Thread Size NPTF	Dimensions		
		A	B	HEX
PP2-H25F	1/4-18	2.38	1.45	0.88



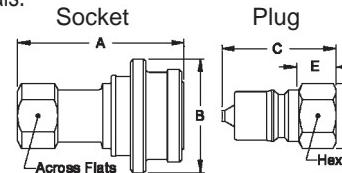
Part No.	Thread Size NPTF	Dimensions		
		C	D	E
PP2-K25F	1/4-18	1.65	1.01	0.67

E = Exposed length when connected

**Series 3-HK Steam Coupling**

The steam coupling has a large diameter flange on the sleeve to aid gripping while the user wears heavy gloves. EPDM seals are standard, and can be used with steam at temperatures up to 350°F. Options are BSPP threads, sleeve lock, EPDM seals for use with steam at temperatures above 350°F and fluorocarbon seals.

Part No.	Thread Size NPTF	Dimensions		
		A	B	Across Flats
B3-H21Y	3/8-18	2.56	1.75	0.88



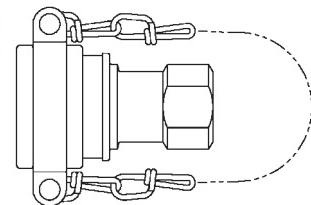
Part No.	Thread Size NPTF	Dimensions		
		C	D	E
B3-K21-192	3/8-18	1.76	1.01	0.61

E = Exposed length when connected

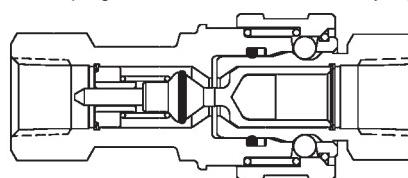
**Release Clamp with Chain**

When fluid lines may be subjected to a damaging pull, couplings can be mounted to disconnect automatically, sealing both ends of a line against fluid loss. The socket sleeve can be anchored to a stationary bracket, either directly or with a chain. Excessive pull on the plug end of the line moves the socket body forward relative to the sleeve, and the plug is released without damage to the line. Release Clamp Assembly Kits are available for Series 1-HK through 8-HKP sockets.

Series	Kit Part No.
1-HK	1-HRC-K
2-HK	2-HRC-K
3-HK	3-HRC-K
4-HKP	4-HRC-K
6-HKP	6-HRC-K
8-HKP	8-HRC-K

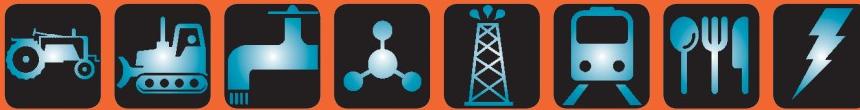
**Bleeder-Style Plugs & One-Way Shut-Off Conversion Via (VAA)**

Bleeder-style plugs can be used on air lines to prevent hose whip when disconnecting a line by reducing the exhaust velocity of air. Bleeder-style plugs can be used on hydraulic lines to prevent static pressure from building up in disconnected lines. Valves of these plugs are manufactured such that a small leak path exists when the plug is disconnected. Bleeder-style plugs are available in Series 1-HK through 6-HKP.



Typical use of  
VAA option with  
series HK

Series	Plug Part No.	Valve Actuator
1-HK	B1-K11-VB	B1-K11-VAA
2-HK	B2-K16-VB	B2-K16-VAA
2-HK	2-K16C-VB	2-K16C-VAA
3-HK	B3-K21-VB	B3-K21-VAA
3-HK	3-K21-VB	3-K21-VAA
3-HK	3-K21C-VB	3-K21C-VAA
4-HKP	4-KP26-VB	4-KP26-VAA
6-HKP	B6-KP31-VB	B6-KP31-VAA
6-HKP	6-KP31-VB	6-KP31-VAA



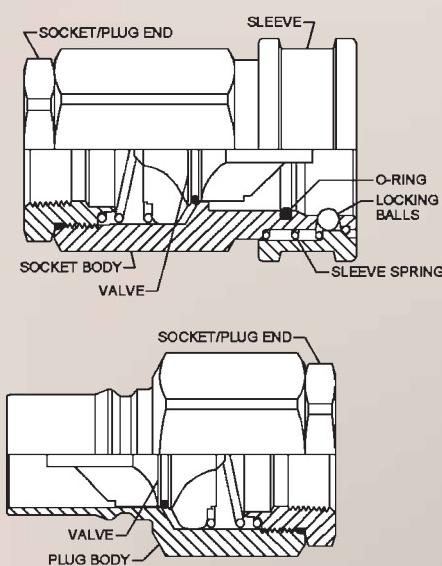
**Series 10-20 HK Couplings** have the same features as the 1-8 HK, but have larger bodies and higher flow rates. Series HK couplings conform to the dimensional requirements of ISO 7241-1 Series B\*. Body sizes range from 1 $\frac{1}{4}$ " to 2 $\frac{1}{2}$ ".

## FEATURES

- Brass, steel and stainless steel construction available in all sizes
- End connections are female NPTF and BSPP
- Heavy duty steel couplings for use in high impulse service available in 12 HK and 20 HK

## APPLICATIONS & INDUSTRIES

- Agriculture
- Hydraulic Tool
- General Industry
- Construction
- Fluid Transfer
- Chemical
- Oil and Gas
- Transportation
- Food and Beverage
- Trucks
- Nuclear



### Interchangeability

- ISO 7241-1 Series B\*



### Materials

- Brass, zinc-plated steel or stainless steel construction
- Stainless steel springs, balls and retaining rings
- Buna-N (Nitrile) seals



1-1/4" to 2-1/2" nominal  
(31.75 mm to 63.5 mm)



-40° F to 250° F  
-40° C to 121° C  
(with standard seal)

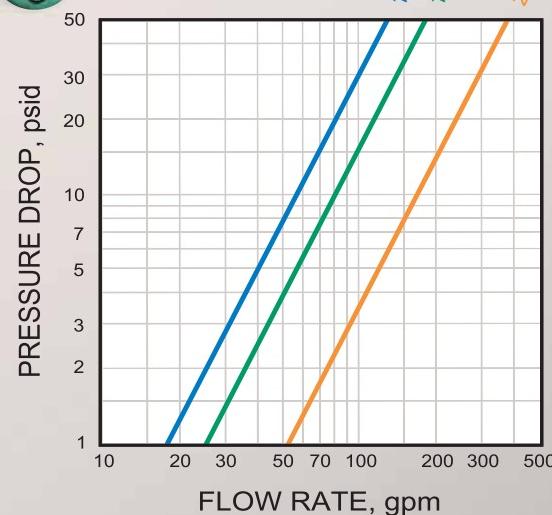


### Rated Pressure

Part Number	Body Size inches (mm)	Brass		Steel		Stainless Steel	
		PSI	BAR	PSI	BAR	PSI	BAR
10-HK	1 $\frac{1}{4}$ (26.7)	1,200	83	1,700	118	1,700	118
12-HK	1 $\frac{1}{2}$ (35.1)	1,500	104	2,200	152	2,200	152
20-HK	2 $\frac{1}{4}$ (46.0)	700	49	1,500	104	1,500	104



### Flow Capacity



\* No ISO Standard available for the 10HK.

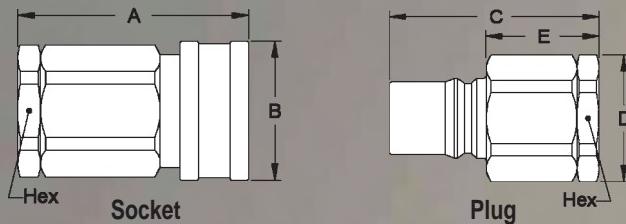
ONE-WAY

TWO-WAY

STRAIGHT-THRU

GAS

ACCESSORIES



## SOCKETS

Body Size (inch)	Part Number				Thread Size (female)		Dimensions (inches)		
	Brass	Steel		303 Stainless Steel	NPTF	BSPP	A	B	HEX
		Standard	High Impulse						
1 1/4*	B10-H41	10-H41	—	LL10-H41	1 1/4-11 1/2	—	4.51	2.73	2.38
1 1/4*	—	10-H41BS	—	LL10-H41BS	—	1 1/4-11	4.51	2.73	2.38
1 1/2	B12-H41	12-H41	12-H41C	LL12-H41	1 1/4-11 1/2	—	4.82	3.23	2.38
1 1/2	B12-H41BS	12-H41BS	12-H41CBS	LL12-H41BS	—	1 1/4-11	4.82	3.23	2.38
1 1/2	B12-H46	12-H46	12-H46C	LL12-H46	1 1/2-11 1/2	—	4.82	3.23	2.38
1 1/2	B12-H46BS	12-H46BS	12-H46CBS	LL12-H46BS	—	1 1/2-11	4.82	3.23	2.38
2 1/2	B20-H51	20-H51	20-H51C	LL20-H51	2-11 1/2	—	5.55	4.11	3.75
2 1/2	B20-H51BS	20-H51BS	20-H51CBS	LL20-H51BS	—	2-11	5.55	4.11	3.75
2 1/2	B20-H56	20-H56	20-H56C	LL20-H56	2 1/2-8	—	6.14	4.11	3.75
2 1/2	B20-H56BS	20-H56BS	20-H56CBS	LL20-H56BS	—	2 1/2-11	6.14	4.11	3.75
2 1/2	B20-H61	20-H61	20-H61C	LL20-H61	3-8	—	7.00	4.11	4.00
2 1/2	B20-H61BS	20-H61BS	20-H61CBS	LL20-H61BS	—	3-11	7.00	4.11	4.00

A = Overall Length   B = Maximum Diameter

## PLUGS

Body Size (inch)	Part Number				Thread Size (female)		Dimensions (inches)			
	Brass	Steel		303 Stainless Steel	NPTF	BSPP	C	D	E	HEX
		Standard	High Impulse							
1 1/4*	B10-K41	10-K41	—	LL10-K41	1 1/4-11 1/2	—	4.25	2.73	2.33	2.38
1 1/4*	—	10-K41BS	—	LL10-K41BS	—	1 1/4-11	4.25	2.73	2.33	2.38
1 1/2	B12-K41	12-K41	12-K41C	LL12-K41	1 1/4-11 1/2	—	4.76	3.02	2.67	2.38
1 1/2	B12-K41BS	12-K41BS	12-K41CBS	LL12-K41BS	—	1 1/4-11	4.76	3.02	2.67	2.38
1 1/2	B12-K46	12-K46	12-K46C	LL12-K46	1 1/2-11 1/2	—	4.76	3.02	2.67	2.38
1 1/2	B12-K46BS	12-K46BS	12-K46CBS	LL12-K46BS	—	1 1/2-11	4.76	3.02	2.67	2.38
2 1/2	B20-K51	20-K51	20-K51C	LL20-K51	2-11 1/2	—	5.49	4.31	2.97	3.75
2 1/2	B20-K51BS	20-K51BS	20-K51CBS	LL20-K51BS	—	2-11	5.49	4.31	2.97	3.75
2 1/2	B20-K56	20-K56	20-K56C	LL20-K56	2 1/2-8	—	6.08	4.31	3.56	3.75
2 1/2	B20-K56BS	20-K56BS	20-K56CBS	LL20-K56BS	—	2 1/2-11	6.08	4.31	3.56	3.75
2 1/2	B20-K61	20-K61	20-K61C	LL20-K61	3-8	—	6.94	4.31	4.42	4.00
2 1/2	B20-K61BS	20-K61BS	20-K61CBS	LL20-K61BS	—	3-11	6.94	4.31	4.42	4.00

C = Overall Length   D = Maximum Diameter   E = Exposed Length when Connected

\* ISO 7241-1 Series B does not include 1-1/4 inch body size couplings; therefore, Series 10-HK is not covered by this standard

### Dust Caps and Dust Plugs Accessories:

Coupling Series	Plug	Dust Cap Part No.	Socket Dust Plug Part No.
12-HK	PDC-12-HK*		SDC-12-HK*
20-HK	PDC-20-HK*		SDC-20-HK*

\*Aluminum

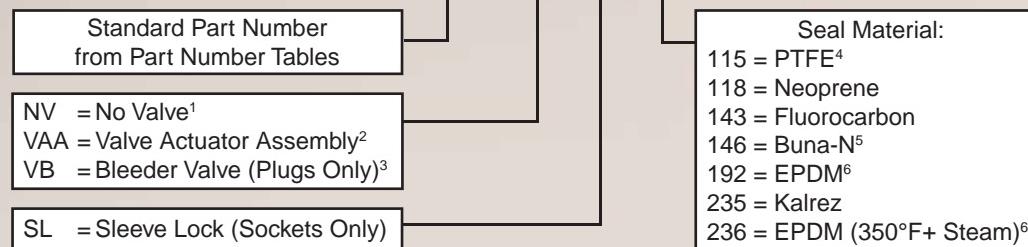


Metal Dust Cap      Metal Dust Plug

## SPECIAL ORDERING INSTRUCTIONS FOR HK SERIES

How to build a socket or plug part number with options:

Example: 4-HP26 - VAA - SL - 143



Notes:

- 1) The NV option should be specified for a socket and a plug when a non-valved coupling is desired. Non-valved Series 1-HK through 8-HKP plugs do not contain seals. Do not specify a seal material.
- 2) The VAA option should be specified for either a socket or a plug when a one-way coupling is desired. (Not available for series 10 HK)
- 3) The VB option can be ordered for Series 1-HK through 6-HKP plugs to prevent pressure build-up in disconnected hydraulic lines or to reduce hose whip when disconnecting pneumatic lines.
- 4) Series HK couplings are designed for use with elastomer seals. PTFE is not an elastomer. It is rigid and not resilient. Couplings with PTFE seals may leak and/or be difficult to connect. Force to connect may be reduced by heating connected couplings in hot water; then, cooling before disconnecting. PTFE seals are available for Series 1-HK through 8-HKP, except Series P2-HK.
- 5) The 146 seal option may be specified for fuels and hydraulic fluids that are known to cause standard Buna-N seals to swell excessively.
- 6) The 236 EPDM seal option should be ordered for use with steam at or above 350° F. The 192 EPDM seal option should be ordered for hot water above 180° F and steam below 350° F.
- 7) Some part numbers may be subject to minimum order quantities and/or available only by special quotation. Consult your local distributor.
- 8) High Impulse – The high strength steel and heat treatment used to give increased resistance to “brinelling” (indentations by locking balls in the plug groove).

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ONE-WAY

TWO-WAY

STRAIGHT-THRU

GAS

ACCESSORIES

## SERIES HKFR



**The HKFR Series** is a quick disconnect, hydraulic coupling, that is designed for hazardous BOP (Blow-Out Preventer) service in the Oil & Gas Industry. It meets or exceeds the ISO 7241-1 Series B standard.

## FEATURES

- Easy visual verification: BOP designation is clearly marked on the socket and plug, along with a distinctive red socket sleeve and red plug wrench flats for simple identification
- Dependable: equipped with ball-locking technology that provides a consistent, positive connection
- Compact design: ideal for building panels where space is limited
- Easy to use: connect and disconnect quickly without tools and no risk of cross threading
- Safe: sleeve lock is standard which prevents accidental disconnects
- Environmental protection: two-way valve design minimizes fluid spillage

## APPLICATIONS &amp; MARKETS

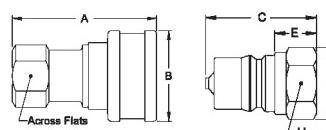
- Oil & Gas

## SOCKETS

Part No.	Body Size	Thread Detail (Female)	Dimensions		
			A	B	Across Flats
4HFR26	1/4"	1/2-14 NPTF	2.96	1.86	1.13
6HFR26	3/4"	3/4-14 NPTF	3.48	2.22	1.31
8HFR26	1"	1-1½ NPTF	4.13	2.61	1.75
ML8HFR36*	1"	1-1½ NPTF	4.13	2.61	1.75

\* Stainless Steel

## Female End Connections



## PLUGS

Part No.	Thread Size	Dimensions			
		C	D	E	HEX
4KFR26	1/2-14 NPTF	2.03	1.30	0.76	1.13
5HFR31	3/4-14 NPTF	2.36	1.52	0.71	1.31
8KFR36	1-1½ NPTF	2.85	1.88	0.97	1.63
ML8KFR36*	1-1½ NPTF	2.85	1.88	0.97	1.63

# HA 15000 SERIES



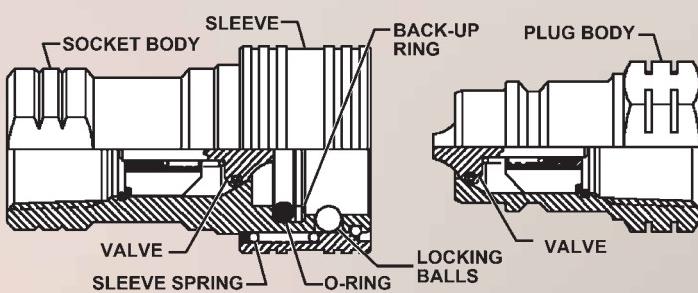
The Series HA 15000 is a general purpose hydraulic and fluid transfer coupling that conforms to the dimensional requirements of ISO 7241-1 Series A. Body sizes range from 1/4" to 1".

## FEATURES

- Ball lock
- Manual connect, disconnect
- Poppet valving
- Slim profile
- Zinc plated steel construction
- NPTF and BSPP end connections
- Available push-to-connect socket designed for bulkhead mounting (1/2" body size only)

## APPLICATIONS & MARKETS

- Construction
- General Industry
- Agriculture
- Fluid Transfer



### Interchangeability

- ISO 7241-1 Series A

### Materials

- Zinc-plated steel construction
- Stainless steel spring, balls and retaining ring
- Buna-N (Nitrile) seal

**1/4" to 1" nominal  
(6.35 mm to 25.4 mm)**

**-4° F to 212° F  
-20° C to 100° C**

### Rated Pressure

Body Size	PSI	BAR
1/4"	4,565	315
3/8"	4,565	315
1/2"	3,625	250
3/4"	3,625	250
1"	2,900	200

### Flow Capacity



ONE-WAY

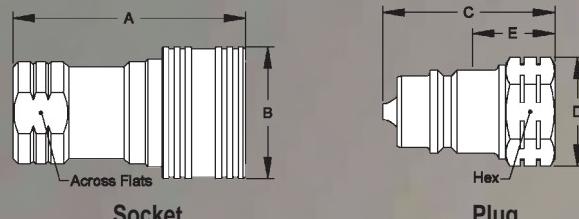
TWO-WAY

STRAIGHT-THRU

GAS

ACCESSORIES

# SERIES HA 15000



## SOCKETS

Body Size (inch)	Part Number (Steel)	Thread Size (female)		Dimensions (inches)		
		NPTF	BSPP	A	B	Across Flats
1/4	HA 15211 00	1/4-18	—	1.89	0.98	0.75
1/4	HA 15011 00	—	1/4-19	1.89	0.98	0.75
3/8	HA 15221 00	3/8-18	—	2.21	1.18	0.91
3/8	HA 15021 00	—	3/8-19	2.21	1.18	0.91
1/2	HA 15231 00	1/2-14	—	2.64	1.49	1.06
1/2	HA 15031 00	—	1/2-14	2.64	1.49	1.06
1/2	HA 15236 00*	1/2-14	—	2.64	1.49	1.06
1/2	HA 15036 00*	—	1/2-14	2.64	1.49	1.06
3/4	HA 15241 00	3/4-14	—	3.25	1.88	1.38
3/4	HA 15041 00	—	3/4-14	3.25	1.88	1.38
1	HA 15251 00	1-11½	—	3.86	2.08	1.62
1	HA 15051 00	—	1-11	3.86	2.08	1.62

\* Push-to-Connect Socket    A = Overall Length    B = Maximum Diameter

## PLUGS

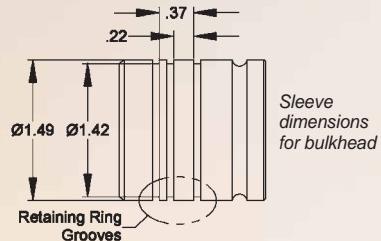
Body Size (inch)	Part Number (Steel)	Thread Size (female)		Dimensions (inches)			
		NPTF	BSPP	C	D	E	Hex
1/4	HA 15212 00	1/4-18	—	1.41	0.86	0.80	0.75
1/4	HA 15012 00	—	1/4-19	1.41	0.86	0.80	0.75
3/8	HA 15222 00	3/8-18	—	1.63	1.04	0.79	0.91
3/8	HA 15022 00	—	3/8-19	1.63	1.04	0.79	0.91
1/2	HA 15232 00	1/2-14	—	1.92	1.22	0.92	1.06
1/2	HA 15032 00	—	1/2-14	1.92	1.22	0.92	1.06
3/4	HA 15242 00	3/4-14	—	2.42	1.58	1.09	1.38
3/4	HA 15042 00	—	3/4-14	2.42	1.58	1.09	1.38
1	HA 15252 00	1-11½	—	2.81	1.85	1.19	1.62
1	HA 15052 00	—	1-11	2.81	1.85	1.19	1.62

C = Overall Length    D = Maximum Diameter    E = Exposed Length when Connected

### Push-to-Connect Socket

Part Numbers  
**HA 15036 00 &**  
**HA 15236 00**

This system allows automatic connection and disconnection simply by pushing the plug into or pulling it out of the socket body. Pulling on the hose moves the socket body forward relative to the bulkhead mounted double-acting sleeve, and the plug is released without damage to the hose.



### Dust Caps and Dust Plugs Accessories:

Body Size (inch)	Plug Dust Cap Part No.	Socket Dust Plug Part No.
1/4	HP 15112 00	HP 15111 00
3/8	HP 15122 00	HP 15121 00
1/2	HP 15132 00	HP 15131 00
3/4	HP 15142 00	HP 15141 00
1	HP 15152 00	HP 15151 00





**The Series FF** is a flat face dry break or minimum spill hydraulic coupling that meets or exceeds the ISO 16028 standard. FF series is ideal for applications where hydraulic spillage is a concern and interchangeability with other manufacturers is important. Body sizes are 1/4", 3/8", 1/2", 5/8", 3/4", and 1".

## FEATURES

- Heavy knurled sleeve creates a non-slip grip
- Meets or exceeds ISO 16028 standard
- 5075 psi maximum operating pressure for all sizes (connected and disconnected)
- Push-to-connect
- Standard sleeve-locking device prevents accidental disconnection
- Color identification rings available to help prevent the crossing of lines

## APPLICATIONS & MARKETS

- |                          |                     |
|--------------------------|---------------------|
| • Agriculture            | • Trucks            |
| • Construction           | • Skidsteer Loaders |
| • Hydraulic Tools        | • Injection Molding |
| • Overhead Bucket Hoists | • Railway           |
| • Oil & Gas              | • Transportation    |
| • General Industry       | • Mining            |
| • Chemical               | • Public Utilities  |



### Interchangeability

- ISO 16028

### Materials

- Zinc plated steel with clear chromate and QPQ finish; RoHS Compliant
- Stainless steel spring and locking balls
- Buna-N (Nitrile) seal

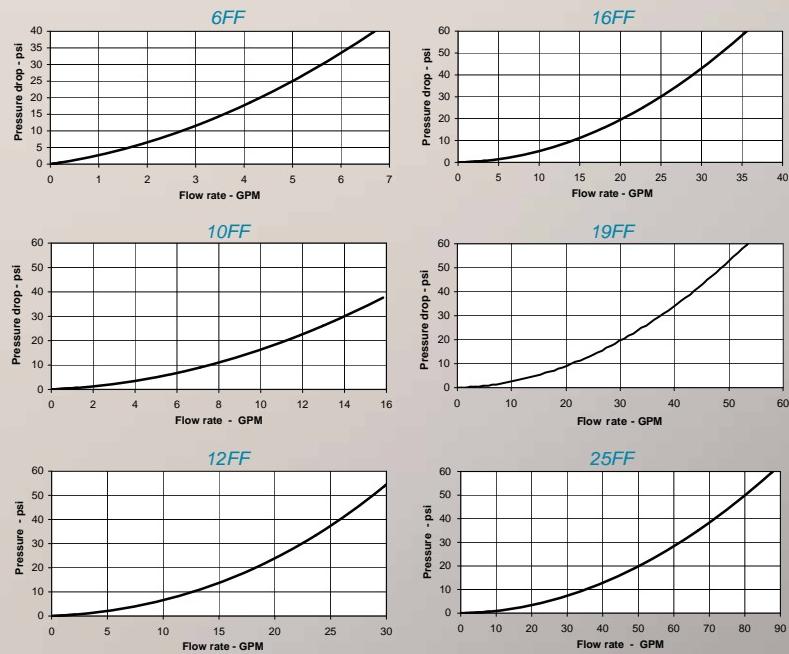
**1/4" to 1" nominal  
(6.35 mm to 25.4 mm)**

**-4° F to 212° F  
-20° C to 100° C**

### Rated Pressure

**5075 psi (350 BAR)**  
maximum operating pressure

**Flow Capacity**  
(see below)



ONE-WAY

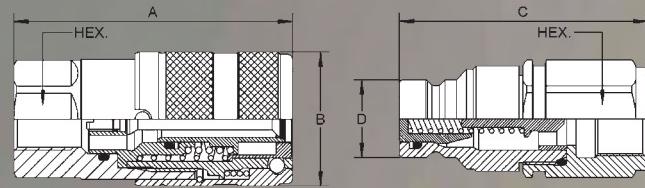
TWO-WAY

STRAIGHT-THRU

GAS

ACCESSORIES

## SERIES FF



Socket                          Plug

## SOCKETS

Body Size	Part Number	Thread Size	Dimensions (inches)			Coupling Connected Length	
			Socket				
			A	B	Hex Size		
1/4"	6FFS25BS	1/4" BSPP	2.13	1.06	0.87	3.7	
	6FFS25	1/4" NPT	2.13	1.06	0.87		
	6FFS56UN	9/16" UNF	2.13	1.06	0.87		
3/8"	10FFS37BS	3/8" BSPP	2.68	1.26	1.06	4.61	
	10FFS37	3/8" NPT	2.68	1.26	1.06		
	10FFS50BS	1/2" BSPP	2.8	1.26	1.06		
	10FFS50	1/2" NPT	2.8	1.26	1.06		
	10FFS16FMET	M16 x 150	2.8	1.26	1.06	4.84	
	10FFS56UN	9/16" UNF	2.8	1.26	1.06		
	10FFS75UN	3/4" UNF	2.8	1.26	1.06		
	10FFS87UN	7/8" UNF	2.91	1.26	1.18		
	10FFS56ORM*	9/16" UNF	3.11	1.26	0.94		
	10FFS75ORM*	3/4" UNF	3.19	1.26	0.94	5.63	
1/2"	12FFS50BS	1/2" BSPP	3.23	1.5	1.42	5.24	
	12FFS50	1/2" NPT	3.23	1.5	1.42		
	12FFS75BS	3/4" BSPP	3.35	1.5	1.42		
	12FFS75	3/4" NPT	3.35	1.5	1.42	5.47	
	12FFS75UN	3/4" UNF	3.23	1.5	1.42		
	12FFS87UN	7/8" UNF	3.35	1.5	1.42		
	12FFS106UN	1-1/16" UN	3.46	1.5	1.42		
						5.71	

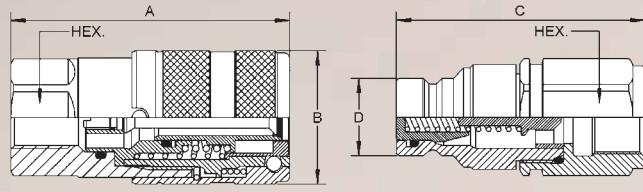
\*= external thread

## PLUGS

Body Size	Part Number	Thread Size	Dimensions (inches)			Coupling Connected Length	
			Plug				
			C	D	Hex Size		
1/4"	6FFP25BS	1/4" BSPP	2.01	0.63	0.87	3.7	
	6FFP25	1/4" NPT	2.01	0.63	0.87		
	6FFP56UN	9/16" UNF	2.01	0.63	0.87		
3/8"	10FFP37BS	3/8" BSPP	2.56	0.78	1.06	4.61	
	10FFP37	3/8" NPT	2.56	0.78	1.06		
	10FFP50BS	1/2" BSPP	2.68	0.78	1.06		
	10FFP50	1/2" NPT	2.68	0.78	1.06		
	10FFP16FMET	M16 x 150	2.68	0.78	1.06	4.84	
	10FFP56UN	9/16" UNF	2.68	0.78	1.06		
	10FFP75UN	3/4" UNF	2.68	0.78	1.06		
	10FFP87UN	7/8" UNF	2.8	0.78	1.18		
	10FFP56ORM*	9/16" UNF	2.99	0.78	0.94		
	10FFP75ORM*	3/4" UNF	3.07	0.78	0.94	5.63	
1/2"	12FFP50BS	1/2" BSPP	2.68	0.96	1.42	5.24	
	12FFP50	1/2" NPT	2.68	0.96	1.42		
	12FFP75BS	3/4" BSPP	2.8	0.96	1.42		
	12FFP75	3/4" NPT	2.8	0.96	1.42	5.47	
	12FFP75UN	3/4" UNF	2.68	0.96	1.42		
	12FFP87UN	7/8" UNF	2.8	0.96	1.42		
	12FFP106UN	1-1/16" UN	2.91	0.96	1.42		
						5.71	

\*= external thread

## SOCKETS



Socket                          Plug

Body Size	Part Number	Thread Size	Dimensions (inches)			
			Socket		Coupling	
			A	B	Hex Size	Connected Length
5/8"	16FFS50BS	1/2" BSPP	3.23	1.65	1.42	5.24
	16FFS50	1/2" NPT	3.23	1.65	1.42	
	16FFS75BS	3/4" BSPP	3.35	1.65	1.42	
	16FFS75	3/4" NPT	3.35	1.65	1.42	
	16FFS75UN	3/4" UNF	3.23	1.65	1.42	
	16FFS87UN	7/8" UNF	3.35	1.65	1.42	
	16FFS106UN	1-1/16" UN	3.46	1.65	1.42	
3/4"	19FFS75BS	3/4" BSPP	3.78	1.81	1.65	6.7
	19FFS75	3/4" NPT	3.78	1.81	1.65	
	19FFS100BS	1" BSPP	3.78	1.81	1.65	
	19FFS100	1" NPT	3.78	1.81	1.65	
	19FFS106UN	1-1/16" UN	3.78	1.81	1.65	
	19FFS131UN	1-5/16" UNF	3.78	1.81	1.65	
1"	25FFS100BS	1" BSPP	4.06	2.17	2.17	7.28
	25FFS100	1" NPT	4.06	2.17	2.17	
	25FFS125BS	1-1/4" BSPP	4.06	2.17	2.17	
	25FFS125	1-1/4" NPT	4.06	2.17	2.17	
	25FFS162UN	1-5/8" UN	4.06	2.17	2.17	

\* = external thread

## PLUGS

Body Size	Part Number	Thread Size	Dimensions (inches)			
			Plug		Coupling	
			C	D	Hex Size	Connected Length
5/8"	16FFP50BS	1/2" BSPP	2.68	1.06	1.42	5.24
	16FFP50	1/2" NPT	2.68	1.06	1.42	
	16FFP75BS	3/4" BSPP	2.8	1.06	1.42	
	16FFP75	3/4" NPT	2.8	1.06	1.42	
	16FFP75UN	3/4" UNF	2.68	1.06	1.42	
	16FFP87UN	7/8" UNF	2.8	1.06	1.42	
	16FFP106UN	1-1/16" UN	2.91	1.06	1.42	
3/4"	19FFP75BS	3/4" BSPP	3.74	1.18	1.65	6.7
	19FFP75	3/4" NPT	3.74	1.18	1.65	
	19FFP100BS	1" BSPP	3.74	1.18	1.65	
	19FFP100	1" NPT	3.74	1.18	1.65	
	19FFP106UN	1-1/16" UN	3.74	1.18	1.65	
	19FFP131UN	1-5/16" UNF	3.74	1.18	1.65	
1"	25FFP100BS	1" BSPP	4.09	1.42	2.17	7.28
	25FFP100	1" NPT	4.09	1.42	2.17	
	25FFP125BS	1-1/4" BSPP	4.09	1.42	2.17	
	25FFP125	1-1/4" NPT	4.09	1.42	2.17	
	25FFP162UN	1-5/8" UN	4.09	1.42	2.17	

\* = external thread

## Dust Caps and Dust Plugs Accessories:

Body Size (inch)	Plug Dust Cap Part No.	Socket Dust Plug Part No.
1/4	PDC6FF	SDC6FF
3/8	PDC10FF	SDC10FF
1/2	PDC12FF	SDC12FF
5/8	PDC16FF	SDC16FF
3/4	PDC19FF	SDC19FF
1	PDC25FF	SDC25FF



Vinyl Dust Cap



Vinyl Dust Plug

ONE-WAY

TWO-WAY

STRAIGHT-THRU

GAS

ACCESSORIES



**The Series 96** coupling is a heavy-duty wing nut coupling designed for use in hydraulic lines where dry break and minimum air inclusion are required. It is ideal for hydraulic dump trucks, oil field equipment, spreading equipment and applications requiring the ability to connect and/or disconnect under pressure. Body sizes are 3/4", 1" and 1 1/4".

## FEATURES

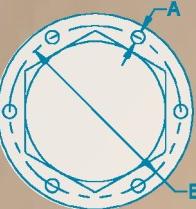
- Flat face valve design
- Non-spill double shut-off with minimum air inclusion
- Connect/disconnect under pressure
- Corrosion resistant brass body
- Plugs can be bulkhead mounted
- Interchanges with other manufacturers' couplings

## APPLICATIONS & INDUSTRIES

- Trucks
- Construction
- Oil and Gas
- Transportation

### Bulkhead Mounting Flanges

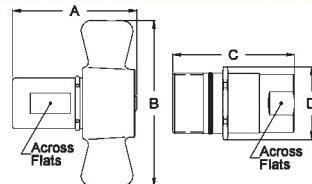
### Dust Caps and Dust Plugs Accessories



Body Series	Part No.	Diameters (inches)		Plug Dust Cap (Brass)	Socket Dust Plug (Brass)
		Bolt Hole A	Bolt Circle B		
3/4"	FL96-075	0.201	2.13	PDC-96-075	SDC-96-075
1"	FL96-100	0.201	2.38	PDC-96-100	SDC-96-100
1 1/4"	FL96-125	0.201	2.63	PDC-96-125	SDC-96-125

## SOCKETS

Body Size	Part No.	Thread Size NPTF	Dimensions		
			A	B	Across Flats
3/4"	96-S31	3/4-14	3.10	4.06	1.15
1"	96-S36	1-11½	3.79	4.45	1.44
1 1/4"	96-S41	1 1/4-11½	3.95	5.35	1.78



## PLUGS

Body Size	Part No.	Thread Size NPTF	Dimensions		
			C	D	Across Flats
3/4"	96-P31	3/4-14	3.13	1.75	1.31
1"	96-P36	1-11½	3.55	2.02	1.56
1 1/4"	96-P41	1 1/4-11½	3.71	2.38	1.88



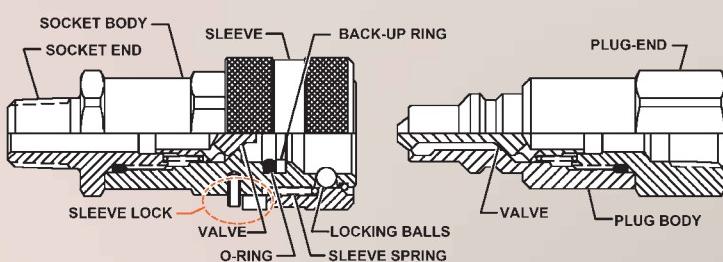
**The Series UP10** is a high pressure hydraulic quick connect coupling designed to operate at pressures up to 10,000 psi. Unlike most high pressure hydraulic couplings that are screw-to-connect, the UP10 Series has a ball locking mechanism, making it quicker & easier to connect. Body size is 1/4".

## FEATURES

- Ball lock
- Slim profile
- High strength steel construction
- Poppet valves with metal-to-metal sealing
- 1/4" & 3/8" male & female NPTF end connections
- Standard sleeve lock

## APPLICATIONS & MARKETS

- Construction
- Hydraulic Tools



### Interchangeability

- Proprietary



### Materials

- High strength steel body and valve
- Stainless steel spring & balls
- Buna-N (Nitrile) seal
- PTFE back-up ring (socket)



**1/4" nominal  
(6.35 mm)**



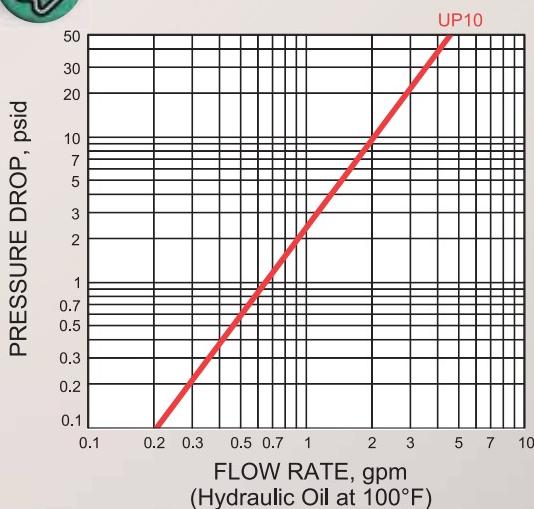
**-40° F to 250° F  
-40° C to 121° C**



**Rated Pressure  
10,000 psi (700 BAR)**



### Flow Capacity



ONE-WAY

TWO-WAY

STRAIGHT-THRU

GAS

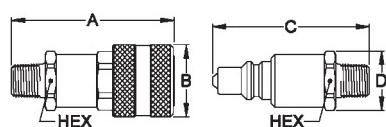
ACCESSORIES

## SERIES UP10

## SOCKETS

Part No.	Thread Size	Dimensions		
		A	B	HEX
UP10S-25M	1/4-18 NPTF	2.69	1.18	0.88
UP10S-37M	3/8-18 NPTF	2.69	1.18	0.88

## Male End Connections

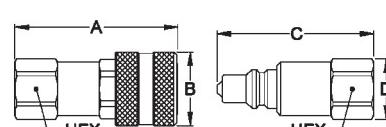


Part No.	Thread Size	Dimensions		
		C	D	HEX
UP10P-25M	1/4-18 NPTF	2.59	0.97	0.88
UP10P-37M	3/8-18 NPTF	2.59	0.97	0.88

## PLUGS

Part No.	Thread Size	Dimensions		
		A	B	HEX
UP10S-25F	1/4-18 NPTF	2.64	1.18	0.88
UP10S-37F	3/8-18 NPTF	2.69	1.18	0.88

## Female End Connections



Part No.	Thread Size	Dimensions		
		C	D	HEX
UP10P-25F	1/4-18 NPTF	2.54	0.97	0.88
UP10P-37F	3/8-18 NPTF	2.59	0.97	0.88

## Dust Caps and Dust Plugs Accessories:

Coupling Series	Plug Dust Cap Part No.	Socket Dust Plug Part No.
UP10	P-PDC-2-HK	P-SDC-2-HK



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# WA 56000/HP3 SERIES



**Series WA 56000 and HP3** are high pressure hydraulic screw together couplings designed to operate at pressures up to 10,000 psi. Their rugged design makes them suitable for use in hydraulic ram, pump and high impulse applications. The WA 56000 has a poppet valve and HP3 has a ball valve. Body sizes are 1/4" and 3/8".

## FEATURES

- Threaded latching
- Rugged steel construction
- Poppet valves with elastomer seal standard in 1/4" coupling
- Poppet valves and ball valves available in 3/8" coupling
- Body size matches thread size. 1/4" and 3/8" body sizes do not interchange.

## APPLICATIONS & MARKETS

- |                    |                |                  |
|--------------------|----------------|------------------|
| • General Industry | • Oil & Gas    | • Test Equipment |
| • Hydraulic Tools  | • Construction |                  |

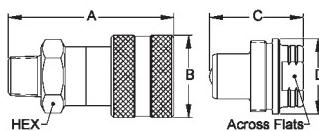
### Dust Caps and Dust Plugs Accessories:

Body Size	Plug Dust Cap Part No.	Socket Dust Plug Part No.
1/4"	WA 56114 00	WA 56117 00
3/8"	WA 56124 00	WA 56127 00



### Sockets – Male End Connections

Part No.	Valve Type	Thread NPTF	Dimensions		
			A	B	HEX
WA 56517 00	Poppet	1/4-18	2.36	1.12	0.88
WA 56527 00	Poppet	3/8-18	2.76	1.38	1.06
HP3SB37M	Ball	3/8-18	2.76	1.38	1.06



### Plugs – Female End Connections

Part No.	Valve Type	Thread NPTF	Dimensions		
			C	D	Across Flats
WA 56514 00	Poppet	1/4-18	1.26	1.10	0.75
WA 56524 00	Poppet	3/8-18	1.52	1.26	0.91
HP3PB37F	Ball	3/8-18	1.52	1.26	0.91

ONE-WAY

TWO-WAY

STRAIGHT-THRU

GAS

ACCESORIES

# SERIES 2-HKIG&2-HKIL



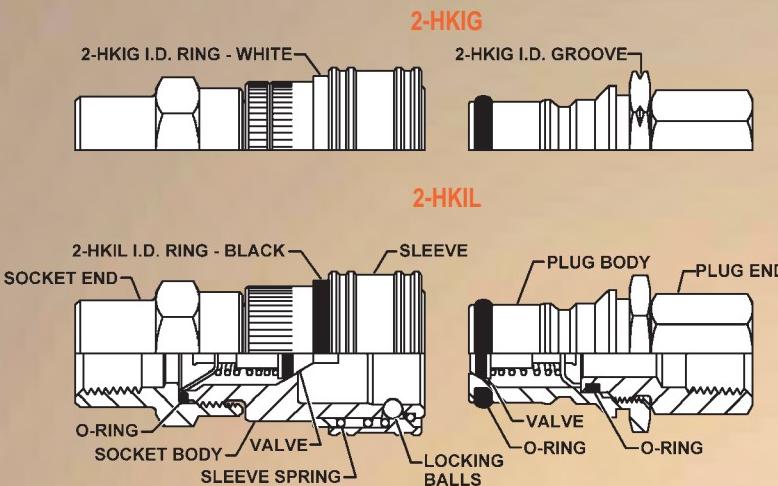
**Series 2-HKIG and 2-HKIL** stainless steel couplings can be used with various liquids and gases. They are functionally identical, but do not interchange. They can be used where it is necessary to avoid crossing lines.

## FEATURES

- Ball lock
- Manual operation
- Do not interchange with one another
- 1/4" body size
- All-stainless steel construction
- Sockets available with right-angle connection

## APPLICATIONS & INDUSTRIES

- Chemical
- General Industry
- Military
- Food and Beverage
- Aerospace



### Interchangeability

- Proprietary

### Materials

- Stainless steel body, valve, sleeve, spring, balls and retaining ring
- Buna-N (Nitrile) seal; optional PTFE, Fluorocarbon, and EPDM
- Socket identification ring
  - 2-HKIG: White acetal
  - 2-HKIL: Black acetal

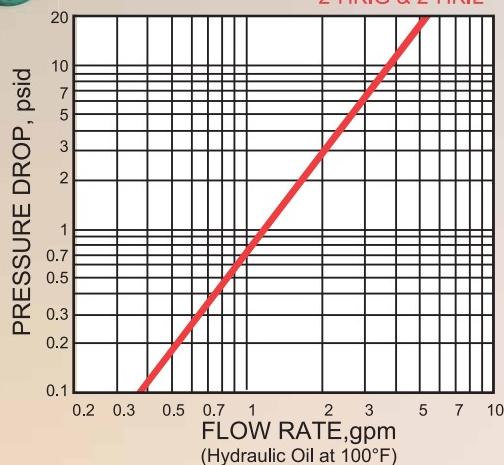
**1/4" nominal  
(6.35 mm)**

**-40° F to 250° F  
-40° C to 121° C**

**Rated Pressure  
1500 psi (103 BAR)**

### Flow Capacity

2-HKIG & 2-HKIL



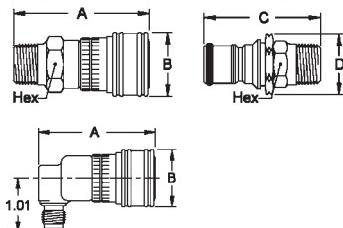
# 2-HKIG&2-HKIL SERIES

## SOCKETS

Part No.	Thread Size	Dimensions		
		A	B	HEX
2-HIG10	1/8-27 NPTF	2.18	1.06	0.81
2-HIG15	1/4-18 NPTF	2.31	1.06	0.81
2-HIG20	3/8-18 NPTF	2.31	1.06	0.81
2-HIG720*	7/16-20	2.27	1.06	0.81
2-HIG-LLRA720†	7/16-20	2.09	1.06	—

## 2-HKIG

### Male End Connections

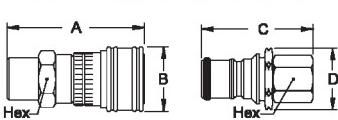


## PLUGS

Part No.	Thread Size	Dimensions		
		C	D	HEX
2-KIG-F15	1/4-18 NPTF	1.98	1.01	0.69
2-KIG-F20	3/8-18 NPTF	1.98	1.01	0.69

Part No.	Thread Size	Dimensions		
		A	B	HEX
2-HIG11	1/8-27 NPTF	2.18	1.06	0.81
2-HIG16	1/4-18 NPTF	2.26	1.06	0.81

### Female End Connections

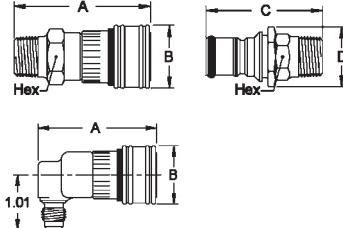


## SOCKETS

Part No.	Thread Size	Dimensions		
		A	B	HEX
2-HIL10	1/8-27 NPTF	2.18	1.06	0.81
2-HIL15	1/4-18 NPTF	2.31	1.06	0.81
2-HIL20	3/8-18 NPTF	2.31	1.06	0.81
2-HIL720*	7/16-20	2.27	1.06	0.81
2-HIL-LLRA720†	7/16-20	2.09	1.06	—

## 2-HKIL

### Male End Connections

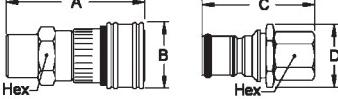


## PLUGS

Part No.	Thread Size	Dimensions		
		C	D	HEX
2-KIL-F15	1/4-18 NPTF	1.98	1.01	0.69
2-KIL-F20	3/8-18 NPTF	1.98	1.01	0.69

Part No.	Thread Size	Dimensions		
		A	B	HEX
2-HIL11	1/8-27 NPTF	2.18	1.06	0.81
2-HIL16	1/4-18 NPTF	2.26	1.06	0.81

### Female End Connections



Part No.	Thread Size	Dimensions		
		C	D	HEX
2-KIL-F16	1/4-18 NPTF	1.84	1.01	0.69
2-KIL-F720*	7/16-20	1.61	1.01	0.69
2-KIL-F	5/8-18	1.17	1.01	0.88

\* 1/4" SAE Flare    † Right-Angle End Connection

### Dust Caps Accessories:

Coupling Series	Plug Dust Cap Part No.
2-HKIG	P-PDC-2-HK
2-HKIL	P-PDC-2-HK



Vinyl Plug Dust Cap

Optional Seal Materials: 115-PTFE, 143-Fluorocarbon, 192-EPDM

ONE-WAY  
TWO-WAY

STRAIGHT-THRU  
GAS

ACCESSORIES

## SERIES DB



**The Series DB** is designed for fluid handling where minimum spillage and minimum air inclusion are required. Couplings in this series are constructed of 316L stainless steel, which makes them suitable for use in cooling systems, chemical, pharmaceutical and food processing industries. Unique interchangeability prevents the crossing of lines (except 3/8" size). Body sizes range from 1/4" to 1".

**FEATURES**

- Ball lock
- Push-to-connect
- Minimal fluid loss when disconnecting
- Minimal air inclusion when connecting
- High flow capacity
- NPTF and BSPP threads available

**Spillage & Air Inclusion**

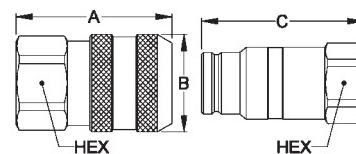
Body Size	Spillage Max. per Disconnect	Air Inclusion Max. per Connect
1/4"	0.010 ml	0.005 ml
3/8"	0.016 ml	0.010 ml
1/2"	0.020 ml	0.020 ml
3/4"	0.030 ml	0.100 ml
1"	0.035 ml	0.126 ml

**APPLICATIONS & INDUSTRIES**

- Fluid Transfer
- Chemical
- Transportation
- Nuclear
- Food and Beverage
- Oil and Gas
- Military
- Cooling Systems
- Pharmaceutical
- Medical Equipment
- Consumer Products
- Aerospace

**SOCKETS**

Body Size (inch)	Part No.	Thread Size (Female)	Dimensions		
			A	B	HEX
1/4	2DBS-25F	1/4-18 NPTF	1.98	1.02	0.88
1/4	2DBS-25FBS	1/4-19 BSPP	1.98	1.02	0.88
3/8	3DBS-37F	3/8-18 NPTF	2.36	1.27	1.06
3/8	3DBS-37FBS	3/8-19 BSPP	2.36	1.27	1.06
1/2	4DBS-50F	1/2-14 NPTF	2.52	1.59	1.38
1/2	4DBS-50FBS	1/2-14 BSPP	2.52	1.59	1.38
3/4	6DBS-75F	3/4-14 NPTF	3.21	2.00	1.62
3/4	6DBS-75FBS	3/4-14 BSPP	3.21	2.00	1.62
1	8DBS-100F	1-11 1/2 NPTF	3.52	2.25	1.81
1	8DBS-100FBS	1-11 BSPP	3.52	2.25	1.81

**Interchangeability**

- ISO 16028 (3/8" only)
- Proprietary (All other sizes)

**Materials**

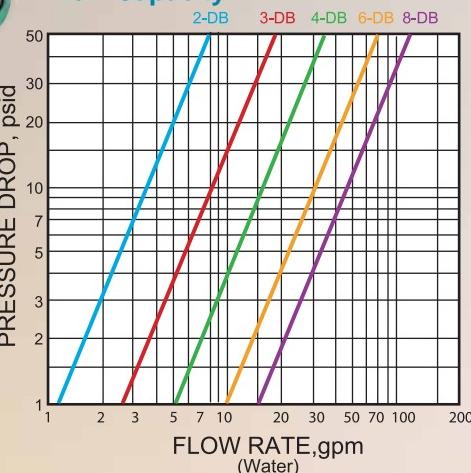
- 316L stainless steel construction
- Fluorocarbon and EPDM seals, optional Kalrez or other seal materials upon request

**1/4" to 1" nominal  
(6.35 mm to 19.6 mm)**

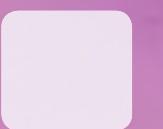
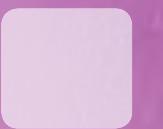
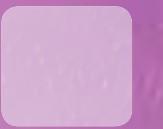
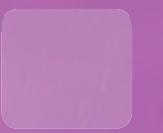
**-4° F to 212° F  
-20° C to 100° C**

**Rated Pressure**

Body Size	Socket		Plug		Connected	
	PSI	BAR	PSI	BAR	PSI	BAR
1/4"	2,030	140	2,755	190	2,755	190
3/8"	2,030	140	2,610	180	2,610	180
1/2" - 1"	1,450	100	2,030	140	2,030	140

**Flow Capacity****PLUGS**

Body Size (inch)	Part No.	Thread Size (Female)	Dimensions		
			C	D	HEX
1/4	2DBP-25F	1/4-18 NPTF	1.65	1.00	0.87
1/4	2DBP-25FBS	1/4-19 BSPP	1.65	1.00	0.87
3/8	3DBP-37F	3/8-18 NPTF	2.42	1.05	0.91
3/8	3DBP-37FBS	3/8-19 BSPP	2.42	1.05	0.91
1/2	4DBP-50F	1/2-14 NPTF	2.63	1.37	1.18
1/2	4DBP-50FBS	1/2-14 BSPP	2.63	1.37	1.18
3/4	6DBP-75F	3/4-14 NPTF	3.19	1.73	1.50
3/4	6DBP-75FBS	3/4-14 BSPP	3.19	1.73	1.50
1	8DBP-100F	1-11 1/2 NPTF	3.52	2.08	1.81
1	8DBP-100FBS	1-11 BSPP	3.52	2.08	1.81



Straight  
Through



# Contents and Selector Chart


**STRAIGHT THROUGH**

Coupling Series	Page	Body Size							Body Material	Locking Mechanism	Options
		1/8 INCH	1/4 INCH	3/8 INCH	1/2 INCH	3/4 INCH	1 INCH	1 1/4 INCH			
1-ST	68/69	●							● ● ●	●	● ●
2-ST	68/69		●						● ● ●	●	● ● ▼
3-ST	68/69			●					● ● ●	●	● ● ▼
4-ST	68/69				●				● ● ●	●	● ●
6-ST	68/69					●			● ● ●	●	● ● ♦
8-ST	68/69						●		● ● ●	●	● ● ★
10-ST	68/69							●	● ● ●	●	● ● ★
12-ST	68/69							●	● ● ●	●	● ●
16-ST	68/69								● ● ●	●	● ●
20-ST	68/69								● ● ●	●	● ●
P2-ST	70		●							●	
P3-ST	70			●						●	
Flo-Temp	72		●	●	●				● ●	●	

▼ Socket Dust Plug Only

◆ Socket Dust Plug and Dust Cap

★ Plug Dust Cap Only



**Series ST** straight through couplings are designed for use where minimum pressure drop is required and valving is not needed. They are well suited for use on pressure wash, steam and carpet cleaning equipment, and many fluid transfer systems. Body sizes range from 1/8" to 2½".

## FEATURES

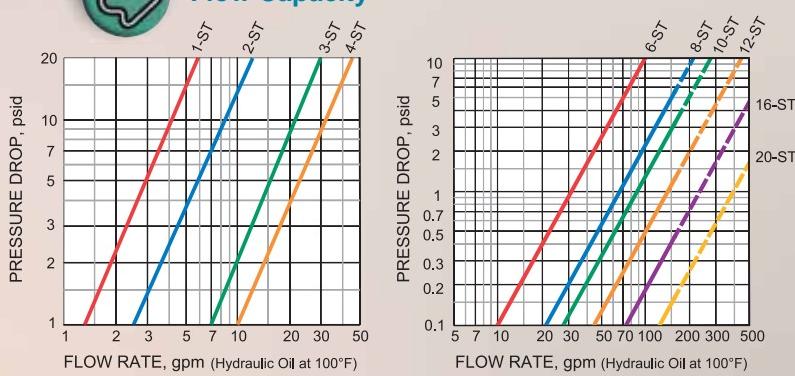
- Ball lock
- Manual operation
- Smooth bore permits free flow of liquid or gas
- Male and female NPTF, BSPP and hose stem connections

## APPLICATIONS & MARKETS

- |                     |                   |                       |
|---------------------|-------------------|-----------------------|
| • General Industry  | • Marine          | • Food and Beverage   |
| • Fluid Transfer    | • Military        | • Breathing Equipment |
| • Chemical          | • Carpet Cleaning | • Pressure Wash       |
| • Food and Beverage | • Steam Cleaning  | • Cooling Systems     |
| • Injection Molding | • Medical         |                       |



### Flow Capacity



### Interchangeability

- Other manufacturers' ST style couplings

### Materials

- Brass or 303 stainless steel socket
- Stainless steel spring, balls and retaining ring
- Brass, zinc plated steel and 303 stainless steel plug
- High impulse heat treated 416 stainless steel plugs available in 1/4" and 3/8" body sizes
- Buna-N (Nitrile) seal; PTFE (1-ST through 8-ST), Neoprene, Fluorocarbon (FKM) and EPDM available



**1/8" to 2½" nominal  
(3.175 mm to 63.5 mm)**



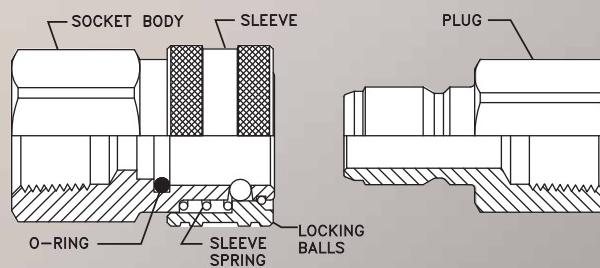
**-40° F to 250° F  
-40° C to 121° C**



### Rated Pressure\*

Series	Body Size	Brass Socket		Brass Socket		Stainless Steel	
		Brass Plug	Steel Plug	Brass Plug	Steel Plug	Socket & Plug	Bar
1-ST	1/8"	2,800	193	3,400	234	4,200	290
2-ST	1/4"	5,200	359	5,500	379	7,500	517
3-ST	3/8"	2,800	193	4,200	290	6,300	434
4-ST	1/2"	2,200	152	3,500	241	3,600	248
6-ST	3/4"	1,700	117	2,100	145	3,000	207
8-ST	1"	1,300	90	2,000	138	2,000	138
10-ST	1 1/4"	1,700	117	2,700	186	2,200	152
12-ST	1 1/2"	1,400	97	2,200	152	2,500	172
16-ST	2"	1,400	97	2,200	152	1,500	103
20-ST	2 1/2"	900	62	1,500	103	-	-

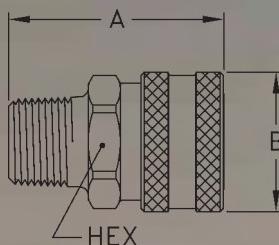
\* Pressure ratings are for sockets and plugs with threaded end connections. Pressure ratings of couplings with hose stems may be significantly lower, and will depend on the type of hose and the method of clamping. Refer to hose manufacturer's end connection pressure ratings. The best way to determine suitability for an application is to run pressure testing under controlled conditions.



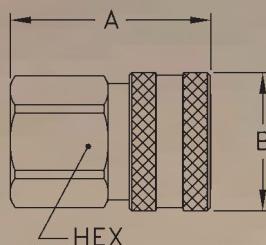
## SERIES ST

## SOCKETS

## Male End Connections



## Female End Connections

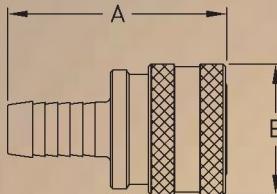


Body Size	Part Number		Thread Size		Dimensions		
	Brass	Stainless	NPTF	BSPP	A	B	Hex
1/8	1-S10	LL1-S10	1/8-27	—	1.06	0.72	0.56
1/8	1-S10BS	LL1-S10BS	—	1/8-28	1.08	0.72	0.56
1/4	2-S15	LL2-S15	1/4-18	—	1.72	0.97	0.81
1/4	2-S15BS	LL2-S15BS	—	1/4-19	1.56	0.97	0.81
3/8	3-S20	LL3-S20	3/8-18	—	1.75	1.16	1.00
3/8	3-S20BS	LL3-S20BS	—	3/8-19	1.71	1.16	1.00
1/2	4-S25	LL4-S25	1/2-14	—	2.03	1.34	1.13
1/2	4-S25BS	LL4-S25BS	—	1/2-14	1.85	1.34	1.13
3/4	6-S30	LL6-S30	3/4-14	—	2.22	1.72	1.44
3/4	6-S30BS	—	—	3/4-14	2.11	1.72	1.44
1	8-S35	—	1-11½	—	2.53	2.03	1.75
1	8-S35BS	—	—	1-11	2.43	2.03	1.75

Body Size	Part Number		Thread Size		Dimensions		
	Brass	Stainless	NPTF	BSPP	A	B	Hex
1/8	1-S11	LL1-S11	1/8-27	—	1.06	0.72	0.56
1/8	1-S11BS	LL1-S11BS	—	1/8-28	1.03	0.72	0.56
1/4	2-S16	LL2-S16	1/4-18	—	1.50	0.97	0.81
1/4	2-S16BS	LL2-S16BS	—	1/4-19	1.50	0.97	0.81
3/8	3-S21	LL3-S21	3/8-18	—	1.59	1.16	1.00
3/8	3-S21BS	LL3-S21BS	—	3/8-19	1.59	1.16	1.00
1/2	4-S26	LL4-S26	1/2-14	—	1.91	1.34	1.13
1/2	4-S26BS	LL4-S26BS	—	1/2-14	1.91	1.34	1.13
3/4	6-S31	LL6-S31	3/4-14	—	2.06	1.72	1.44
3/4	6-S31BS	LL6-S31BS	—	3/4-14	2.06	1.72	1.44
1	8-S36	LL8-S36	1-11½	—	2.33	2.03	1.75
1	8-S36BS	LL8-S36BS	—	1-11	2.33	2.03	1.75
1¼	10-S41*	LL10-S41	1¼-11½	—	2.44	2.50	2.00
1¼	10-S41BS*	—	—	1¼-11	2.51	2.50	2.00
1½	12-S46*	LL12-S46	1½-11½	—	2.88	3.13	2.63
1½	12-S46BS*	LL12-S46BS	—	1½-11	2.88	3.13	2.63
2	16-S51*	LL16-S51	2-11½	—	3.09	3.75	3.00
2	16-S51BS*	LL16-S51BS	—	2-11	3.30	3.75	3.00
2½	20-S56*	—	2½-8	—	3.44	4.50	3.50

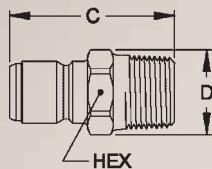
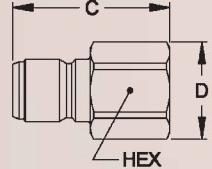
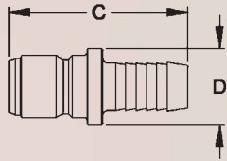
\* With Steel Sleeve

## Hose Stem Connections



Body Size	Part Number		Hose I.D.	Dimensions	
	Brass	Stainless		A	B
1/8	1-S12	LL1-S12	3/16"	1.41	0.72
1/8	1-S17	LL1-S17	1/4"	1.41	0.72
1/4	2-S17	LL2-S17	1/4"	2.10	0.97
3/8	3-S22	LL3-S22	3/8"	2.09	1.16
1/2	4-S27	LL4-S27	1/2"	2.19	1.34
3/4	6-S32	LL6-S32	3/4"	3.19	1.72
1	8-S37	LL8-S37	1"	3.32	2.03

## PLUGS

 Male End  
Connections

 Female End  
Connections

 Hose Stem  
Connections


Body Size (inch)	Part Number			Thread Size (female)		Dimensions (inches)			
	Brass	Steel	Stainless	NPTF	BSPP	C	D	Hex	
1/8	B1-T10	1-T10	LL1-T10	1/8-27	—	1.06	0.51	0.44	
1/8	B1-T10BS	—	—	—	1/8-28	0.97	0.65	0.56	
1/8	B1-T15	1-T15	—	1/4-18	—	1.22	0.65	0.56	
1/4	B2-T15	2-T15	LL2-T15	1/4-18	—	1.56	0.65	0.56	
1/4	—	—	HL2-T15*	1/4-18	—	1.56	0.65	0.56	
1/4	B2-T15BS	2-T15BS	LL2-T15BS	—	1/4-19	1.46	0.87	0.75	
3/8	B3-T20	3-T20	LL3-T20	3/8-18	—	1.69	0.79	0.69	
3/8	—	—	HL3-T20*	3/8-18	—	1.69	0.79	0.69	
3/8	B3-T20BS	3-T20BS	LL3-T20BS	—	3/8-19	1.59	1.01	0.88	
1/2	B4-T25	4-T25	LL4-T25	1/2-14	—	2.01	1.01	0.88	
1/2	B4-T25BS	4-T25BS	LL4-T25BS	—	1/2-14	1.82	1.15	1.00	
3/4	B6-T30	6-T30	LL6-T30	3/4-14	—	2.20	1.23	1.06	
3/4	B6-T30BS	—	LL6-T30BS	—	3/4-14	2.08	1.44	1.25	
1	B8-T35	8-T35	LL8-T35	1-11½	—	2.49	1.59	1.38	
1	B8-T35BS	—	—	—	1-11	2.36	2.02	1.75	
1¼	B10-T40	10-T40	LL10-T40	1¼-11½	—	2.72	2.02	1.75	
1¼	B10-T40BS	—	—	—	1¼-11	2.55	2.31	2.00	
1½	B12-T45	12-T45	—	—	1½-11½	—	3.31	2.60	2.25
1½	B12-T45BS	—	—	—	1½-11	3.19	2.60	2.25	
2	B16-T50	16-T50	LL16-T50	2-11½	—	3.50	3.18	2.75	
2	—	—	LL16-T50BS	—	2-11	3.54	3.18	2.75	
2½	B20-T55	—	—	2½-8	—	4.24	3.75	3.25	

Body Size (inch)	Part Number			Thread Size (female)		Dimensions (inches)		
	Brass	Steel	Stainless	NPTF	BSPP	C	D	Hex
1/8	B1-T11	1-T11	LL1-T11	1/8-27	—	0.97	0.58	0.50
1/8	B1-T11BS	—	LL1-T11BS	—	1/8-28	0.97	0.65	0.56
1/4	B2-T16	2-T16	LL2-T16	1/4-18	—	1.45	0.79	0.69
1/4	—	—	HL2-T16*	1/4-18	—	1.45	0.79	0.69
1/4	B2-T16BS	2-T16BS	LL2-T16BS	—	1/4-19	1.45	0.87	0.75
3/8	B3-T21	3-T21	LL3-T21	3/8-18	—	1.63	0.94	0.81
3/8	—	—	HL3-T21*	3/8-18	—	1.63	0.94	0.81
3/8	B3-T21BS	3-T21BS	LL3-T21BS	—	3/8-19	1.63	1.01	0.88
1/2	B4-T26	4-T26	LL4-T26	1/2-14	—	1.92	1.15	1.00
1/2	B4-T26BS	4-T26BS	LL4-T26BS	—	1/2-14	1.92	1.23	1.06
3/4	B6-T31	6-T31	LL6-T31	3/4-14	—	2.01	1.37	1.19
3/4	B6-T31BS	—	LL6-T31BS	—	3/4-14	2.01	1.52	1.31
1	B8-T36	8-T36	LL8-T36	1-11½	—	2.21	1.80	1.56
1	B8-T36BS	8-T36BS	LL8-T36BS	—	1-11	2.23	1.80	1.56
1¼	B10-T41	10-T41	LL10-T41	1¼-11½	—	2.34	2.31	2.00
1¼	B10-T41BS	—	—	—	1¼-11	2.53	2.31	2.00
1½	B12-T46	12-T46	LL12-T46	1½-11½	—	2.88	2.60	2.25
1½	B12-T46BS	—	—	—	1½-11	2.88	2.60	2.25
2	B16-T51	16-T51	—	2-11½	—	3.03	3.18	2.75
2	B16-T51BS	—	—	—	2-11	3.25	3.18	2.75
2½	B20-T56	20-T56	—	2½-8	—	3.37	3.75	3.25

\* High impulse heat treated 416 stainless steel

Body Size (inch)	Part Number			Hose I. D.	Dimensions (inches)		
	Brass	Steel	Stainless		C	D Ø	
1/8	B1-T12	—	LL1-T12	3/16"	1.28	0.44	
1/8	B1-T17	—	LL1-T17	1/4"	1.28	0.44	
1/4	B2-T17	2-T17	LL2-T17	1/4"	1.93	0.56	
3/8	B3-T22	3-T22	LL3-T22	3/8"	2.09	0.69	
1/2	B4-T27	4-T27	LL4-T27	1/2"	2.17	0.88	
3/4	B6-T32	6-T32	LL6-T32	3/4"	3.17	1.19	
1	B8-T37	8-T37	—	1"	3.28	1.50	

## Dust Caps and Dust Plugs Accessories:



Series	Plug Dust Cap (Vinyl)	Socket Dust Plug (Vinyl)
2-ST	—	P-SDC-1-HK
3-ST	—	P-SDC-2-HK
6-ST	P-PDC-4-HK	P-SDC-4-HK
8-ST	P-PDC-6-HK	—
10-ST	P-PDC-8-HK	—



# SERIES P2-ST&P3-ST



**Series P2-ST and P3-ST** couplings have the same design as the ST, but with polypropylene construction, specifically designed for use with medical equipment. They can also be used in a variety of low pressure fluid transfer applications.

## FEATURES

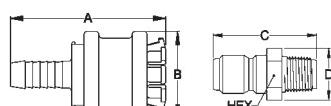
- Interchange with 2-ST and 3-ST
- Excellent chemical resistance
- Light weight

## APPLICATIONS & INDUSTRIES

- Medical
- Chemical
- Fluid Transfer
- Pharmaceutical

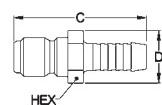
## SOCKETS

Series	Part No.	Hose I.D.	Dimensions	
			A	B
P2-ST	P2-STS-25H	1/4"	2.07	1.12
<i>Each P2-ST socket uses one Part No. 902-7 o-ring.</i>				
P3-ST	P3-STS-37H	3/8"	2.61	1.37
<i>Each P3-ST socket uses one Part No. 902-10-199 o-ring.</i>				



## PLUGS

Series	Part No.	Thread Size	Dimensions		
			C	D	HEX
P2-ST	P2-STP-25M	1/4-18 NPTF	1.56	0.65	0.56
P3-ST	P3-STP-25M	1/4-18 NPTF	1.69	0.79	0.69
P3-ST	P3-STP-37M	3/8-18 NPTF	1.69	0.79	0.69



Series	Part No.	Hose I.D.	Dimensions		
			C	D	HEX
P3-ST	P3-STP-37H	3/8"	2.16	0.79	0.69

**CAN'T FIND WHAT YOU'RE LOOKING FOR?  
VISIT [WWW.TUTHILL.COM](http://WWW.TUTHILL.COM) FOR PRODUCT  
INFORMATION OR CALL YOUR LOCAL  
DISTRIBUTOR.**





**Flo-Temp** couplings provide the flow needed to cool or heat injection molds and die casting dies. Sockets are available non-valved for maximum flow and valved to prevent fluid loss when disconnected. Flo-Temp couplings can be used with water-glycol, hot water and hot oil. Body sizes are 1/4", 3/8" and 1/2".

## FEATURES

- Non-valved straight through models for maximum flow
- Valved sockets for automatic shut-off when line is disconnected
- Sockets available with straight, 90° or 45° hose stems or without hose stem
- Brass plugs with male pipe thread for recessed mounting to avoid damage to plugs when molds are being changed or stored

## APPLICATIONS & INDUSTRIES

- Injection Molding
- Heating/Cooling

## REPLACEMENT PARTS

Description	Part Number		
	Series 200	Series 300	Series 500
Seal	WFT-200-228	WFT-300-228	WFT-500-228
Valve	VFT-200	VFT-300	VFT-500
Valve O-Ring	902-3-143	903-8-143	914-3-143
Valve Spring	VSFT-200	VS-3000	VSFT-500



### Interchangeability

- Other manufacturers' coolant line couplings



### Materials

- Brass socket construction
- Stainless steel spring and locking balls
- Fluorocarbon seal (-30° F to +450° F)
- Brass plug

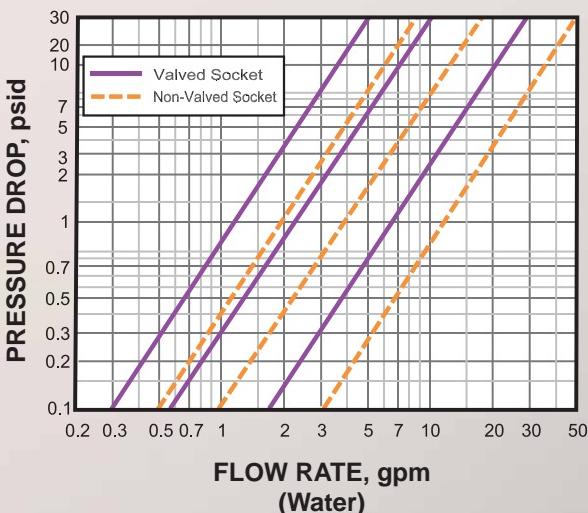
**1/4" to 1/2" nominal  
(6.35 mm to 12.7 mm)**

**-30° F to 450° F  
-34° C to 232° C**

**Rated Pressure  
200 psi / 14 BAR**

### Flow Capacity

FT200-V  
FT200  
FT300-V  
FT300  
FT500-V  
FT500



ONE-WAY

TWO-WAY

STRAIGHT-THRU

GAS

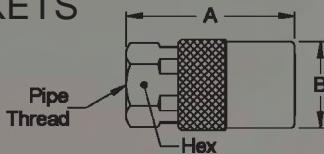
ACCESSORIES



## SERIES FLO-TEMP

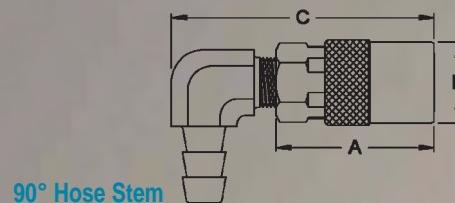
 200  
300  
500

## SOCKETS

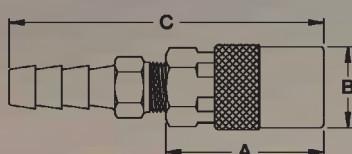


Without Hose Stem

Body Size (inch)	Part Number	Dimensions (inches)			Thread Size NPTF
		A	B	HEX	
1/4	LNFT-200	1.68	0.67	0.56	1/8-27
3/8	LNFT-300	2.18	0.89	0.75	1/4-18
1/2	LNFT-500	2.00	1.17	1.13	1/2-14

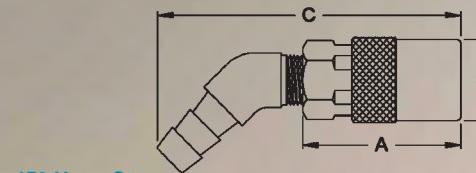


90° Hose Stem



Straight Hose Stem

Body Size (inch)	Part Number		Hose I.D.	Dimensions (inches)		
	Non-Valved	Valved		A	B	C
1/4	FTS-204	FTS-204V	1/4"	1.20	0.67	2.25
1/4	FTS-204HP*	FTS-204VHP*	1/4"	1.20	0.67	2.09
1/4	FTS-205	FTS-205V	5/16"	1.20	0.67	2.09
1/4	FTS-206	FTS-206V	3/8"	1.20	0.67	2.25
1/4	FTS-206HP*	FTS-206VHP*	3/8"	1.20	0.67	2.34
3/8	FTS-306	FTS-306V	3/8"	1.60	0.91	2.68
3/8	FTS-306HP*	FTS-306VHP*	3/8"	1.61	0.89	2.75
3/8	FTS-308	FTS-308V	1/2"	1.61	0.88	2.82
3/8	FTS-308HP*	FTS-308VHP*	1/2"	1.61	0.88	2.82
1/2	FTS-504	FTS-504V	1/2"	2.25	1.18	3.42
1/2	FTS-504HP*	FTS-504VHP*	1/2"	2.25	1.18	3.62
1/2	FTS-506	FTS-506V	3/4"	2.22	1.18	3.85
1/2	FTS-506HP*	FTS-506VHP*	3/4"	2.22	1.18	4.35

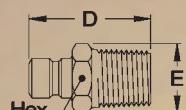


45° Hose Stem

Body Size (inch)	Part Number		Hose I.D.	Dimensions (inches)		
	Non-Valved	Valved		A	B	C
1/4	FTS-224	FTS-224V	1/4"	1.17	0.67	2.40
1/4	FTS-224HP*	FTS-224VHP*	1/4"	1.17	0.67	2.40
1/4	FTS-225	FTS-225V	5/16"	1.17	0.67	2.40
1/4	FTS-226	FTS-226V	3/8"	1.17	0.67	2.40
1/4	FTS-226HP*	FTS-226VHP*	3/8"	1.17	0.67	2.40
3/8	FTS-326	FTS-326V	3/8"	1.80	0.90	3.70
3/8	FTS-326HP*	FTS-326VHP*	3/8"	1.80	0.90	3.17
3/8	FTS-328	FTS-328V	1/2"	1.60	0.90	3.17
3/8	FTS-328HP*	FTS-328VHP*	1/2"	1.60	0.90	3.17

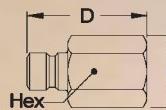
\*Part numbers with HP suffix have push-on hose barb. All other FTS part numbers have standard hose barb.

## PLUGS



Male Pipe Thread

Body Size (inch)	Part Number Brass	Thread Size	Dimensions (inches)			Installation Recess	
			D	E	HEX		
1/4	FTP-251	1/8-27 NPTF	0.94	0.49	0.44	0.69	0.69
1/4	FTP-251BST	1/8-28 BSPT	0.94	0.49	0.44	0.69	0.69
1/4	FTP-252	1/4-18 NPTF	1.15	0.63	0.56	0.84	0.94
1/4	FTP-252BST	1/4-19 BSPT	1.15	0.63	0.56	0.84	0.94
1/4	FTP-253	3/8-18 NPTF	1.19	0.77	0.69	1.00	0.94
3/8	FTP-352	1/4-18 NPTF	1.40	0.63	0.56	1.00	1.09
3/8	FTP-352BST	1/4-19 BSPT	1.40	0.63	0.56	1.00	1.09
3/8	FTP-353	3/8-18 NPTF	1.40	0.77	0.69	1.00	1.13
3/8	FTP-353BST	3/8-19 BSPT	1.40	0.77	0.69	1.00	1.13
3/8	FTP-354	1/2-14 NPTF	1.56	0.98	0.88	1.19	1.25
1/2	FTP-554	1/2-14 NPTF	1.75	0.98	0.88	1.25	1.50
1/2	FTP-556	3/4-14 NPTF	1.75	1.25	1.13	1.50	1.56



Female Pipe Thread

Body Size (inch)	Part Number Brass	Thread Size	Dimensions (inches)		
			D	E	HEX
1/4	FTP-251-F	1/8-27 NPTF	1.00	0.58	0.50
1/4	FTP-251-FBS	1/8-28 BSPT	1.00	0.65	0.56
1/4	FTP-252-F	1/4-18 NPTF	1.20	0.72	0.63
1/4	FTP-252-FBS	1/4-19 BSPT	1.20	0.87	0.75
1/4	FTP-253-F	3/8-18 NPTF	1.25	0.87	0.75
3/8	FTP-352-F	1/4-18 NPTF	1.38	0.72	0.63
3/8	FTP-352-FBS	1/4-19 BSPT	1.28	0.87	0.75
3/8	FTP-353-F	3/8-18 NPTF	1.40	0.87	0.75
3/8	FTP-353-FBS	3/8-19 BSPT	1.40	1.01	0.88
3/8	FTP-354-F	1/2-14 NPTF	1.62	1.08	0.94
1/2	FTP-554-F	1/2-14 NPTF	1.72	1.08	0.94
1/2	FTP-556-F	3/4-14 NPTF	1.78	1.30	1.13



# Gas





# SERIES Gas-Mate



**Gas-Mate** couplings are one-way shut-off safety couplings designed for the connection of gas cooking appliances and other gas-fired devices. Body sizes are 3/8", 1/2", 3/4", 1" and 1 1/4".

## FEATURES

- Connect and disconnect without using wrenches
- Automatic shut-off when plug is removed from socket
- In case of fire, heat-sensitive plug allows socket valve to close, stopping gas flow
- Push-to-connect (1 1/4" only)

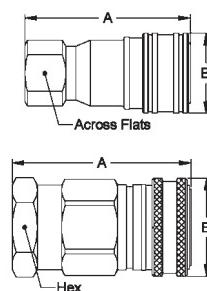
## APPLICATIONS & INDUSTRIES

- Industrial
- Fuel Gas Systems

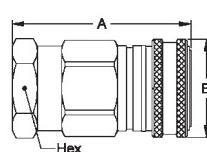
## SOCKETS

### Dimensions

Body Size	Part No.	Thread Size NPTF	A	B	Across Flats
3/8"	100-006	3/8-18	2.44	1.13	1.00
1/2"	100-008	1/2-14	2.84	1.38	1.13
3/4"	100-010	3/4-14	3.17	1.75	1.50
1"	100-012	1-11 1/2	3.94	2.13	1.75



Body Size	Part No.	Thread Size NPTF	Dimensions		
			A	B	HEX
1 1/4"	GMS1250FH	1 1/4-11 1/2	4.15	2.28	2.00



### Interchangeability

– 3/8" ANSI Z 21.41;  
Other sizes proprietary



### Materials

- Brass construction
- Stainless steel locking balls
- Fluorocarbon (FKM) socket o-ring
- Valve actuator soldered to plug with low melting temperature alloy



**3/8" to 1 1/4" nominal**  
(9.525 mm to 31.75 mm)



**-40° F to 250° F**  
**-40° C to 121° C**

### Capacities

Body Size	Socket Part No.	Plug Part No.	Capacity* BTU/hr	Socket O-Ring Part No.
3/8"	100-006	100-506	60,000	914-3-143M
1/2"	100-008	100-508	90,000	902-14-143M
3/4"	100-010	100-510	245,000	902-18-143M
1"	100-012	100-512	310,000	902-23-143M
1 1/4"	GMS1250FH	GMP1250F	500,000	914-26-143M

\* Capacity is based on natural gas having a specific gravity of 0.64 and a heat capacity of 1,000 BTU per cubic foot. Inlet pressure is 12 inches water column and the pressure drop is 0.3 inch water column.

## PLUGS

Body Size	Part No.	Thread Size NPTF	Dimensions		
			C	D	HEX
3/8"	100-506	3/8-18	1.59	0.94	0.81
1/2"	100-508	1/2-14	1.94	1.16	1.00
3/4"	100-510	3/4-14	2.06	1.52	1.31
1"	100-512	1-11 1/2	2.47	1.73	1.50

Body Size	Part No.	Thread Size NPTF	Dimensions		
			C	D	HEX
1 1/4"	GMP1250F	1 1/4-11 1/2	2.44	2.16	1.88

### Dust Caps and Dust Plugs Accessories:

Body Size	Plug Dust Cap Part No.		Socket Dust Plug Part No.	
	Metal	Vinyl	Metal	Vinyl
3/8"	PDC-2-HK*	P-PDC-2-HK	SDC-2-HK*	P-SDC-2-HK
1/2"	PDC-3-HK*	P-PDC-3-HK	SDC-3-HK*	P-SDC-3-HK
3/4"	PDC-4-HK**	P-PDC-4-HK	SDC-4-HK**	P-SDC-4-HK
1"	PDC-6-HK**	P-PDC-6-HK	SDC-6-HK**	P-SDC-6-HK

\*Brass    \*\*Aluminum



CANADIAN  
STANDARDS  
ASSOCIATION\*

Complies with the requirements of  
ANSI Z21.41 & CSA 6.9.

\* CSA design certified, in both the United States and Canada, for natural gas, manufactured gas, liquefied petroleum and LP gas-air mixtures at pressures not in excess of 1/2 psig (3.5 kPa).



# Accessories





# SERIES FS Flow Sensor



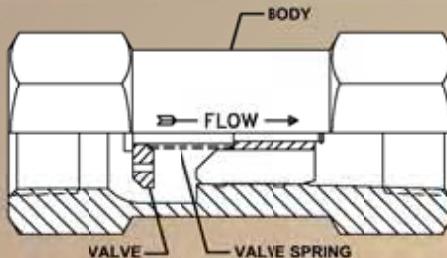
**Series FS Flow Sensors** are designed to protect personnel and property in case of hose failure in compliance with Federal Safety Regulations. Flow Sensors are intended for use with compressed air.

## FEATURES

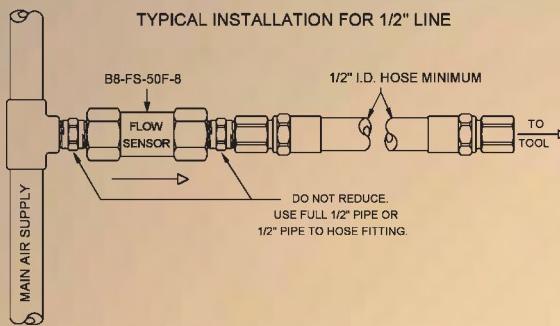
- Automatically shuts off air flow to ruptured hose
- Reduces risk of injury or damage from hose whip
- Automatically resets after failure correction
- 250 psig pressure rating (all sizes)
- Low pressure drop
- Operates in any orientation
- Compact design, economical, tamper-resistant

## APPLICATIONS & INDUSTRIES

- General Industry
- Pneumatic Tools



TYPICAL INSTALLATION FOR 1/2" LINE

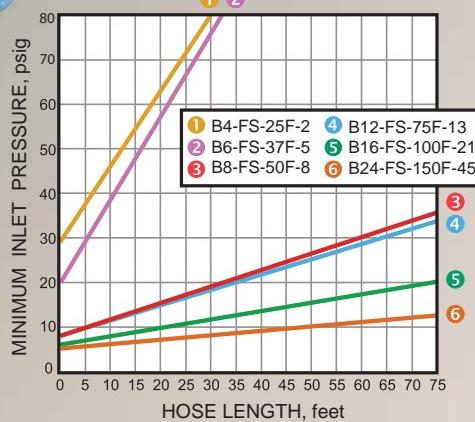


### Materials

- Brass body
- Acetal valve (1/4" - 1")
- Brass valve (1½")
- Stainless steel valve spring



### Rated Pressure



**Flow Data** - The graph above indicates the minimum inlet pressure for various hose lengths. Each Flow Sensor has a shut-off flow rating dependent upon inlet pressure. The length of hose and fitting size are critical in the proper operation of the valve. For example, with the B8-FS-50F-8 Flow Sensor, the hose I.D. must be 1/2" using only 1/2" pipe thread end fittings. Thirty feet of hose requires at least 20 psig inlet pressure; fifty feet of hose requires at least 28 psig inlet pressure; and seventy-five feet of hose requires at least 36 psig inlet pressure. Inlet pressures lower than those indicated on the curves above will not guarantee protection in case of hose failure. Valve shut-off occurs only when flow exceeds the flow rating for the inlet pressure.

If hose lengths greater than 75 feet are required, a 1/2" size or larger Flow Sensor must be installed on the inlet end of each 75-foot section, and a correspondingly higher inlet pressure must be supplied for proper operation of the Flow Sensor to assure safety.

Body Size	Part Number	Thread Size NPTF	Shut-Off Flow, scfm, at Inlet Pressure, Psig								Dimensions	
			60	80	100	100	140	160	180	200	Length	Hex
1/4"	B4-FS-25F-2	1/4-18	16	18	20	22	23	25	26	27	2.14	0.75
3/8"	B6-FS-37F-5	3/8-18	41	46	50	55	59	63	66	69	2.50	.088
1/2"	B8-FS-50F-8	1/2-14	65	73	80	87	93	99	104	109	3.12	1.06
3/4"	B12-FS-75F-13	3/4-14	105	118	130	141	152	161	169	177	3.68	1.38
1"	B16-FS-100F-21	1-11½	170	191	210	227	245	260	273	286	4.75	1.75
1 1/2"	B24-FS-150F-45	1 1/2-11½	365	410	450	489	525	557	586	615	5.86	2.50

All Flow Sensors have a pressure drop of approximately 2 psid at 80% of shut-off flow.



CHECK OUT OUR DEMONSTRATION VIDEO AT [WWW.TUTHILL.COM](http://WWW.TUTHILL.COM).



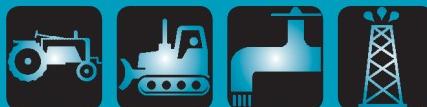


Accessories

IN-LINE

# CHECK VALVES

Tuthill



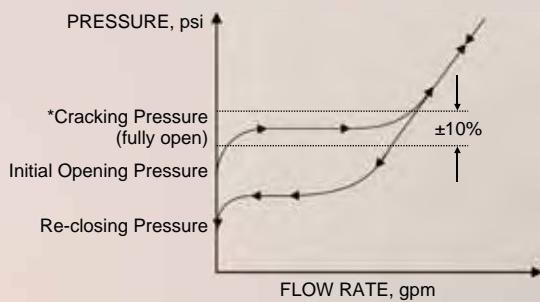
**Series RA 4000** in-line check valves are designed to allow flow of fluid in one direction only and limit the line's internal pressure (to the cracking pressure). They are rugged and reliable, offer low pressure drop and have elastomer valve seals for leak-free operation. Available sizes are 1/4" to 2".

## FEATURES

- One-piece zinc plated steel body
- High strength steel valve provides excellent reliability under severe operating conditions
- The valve has a captive nitrile (Buna-N) seal, assuring no leakage at low and high pressures
- Low pressure drop versus flow rate
- Cracking pressure: 7 psi (0.5 bar)
- Cracking pressure is non-adjustable
- Contact supplier for availability of alternative cracking pressures

## APPLICATIONS & INDUSTRIES

- |                   |                    |
|-------------------|--------------------|
| • Agriculture     | • General Industry |
| • Construction    | • Fluid Transfer   |
| • Hydraulic Tools | • Oil and Gas      |



\* The cracking pressure corresponds to the full discharge pressure (valve fully open) with a tolerance of ±10%.

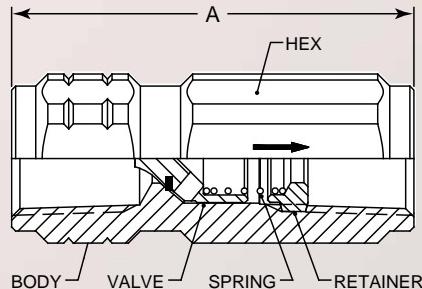


1/4" to 2" nominal  
(6.35 mm to 50.80 mm)

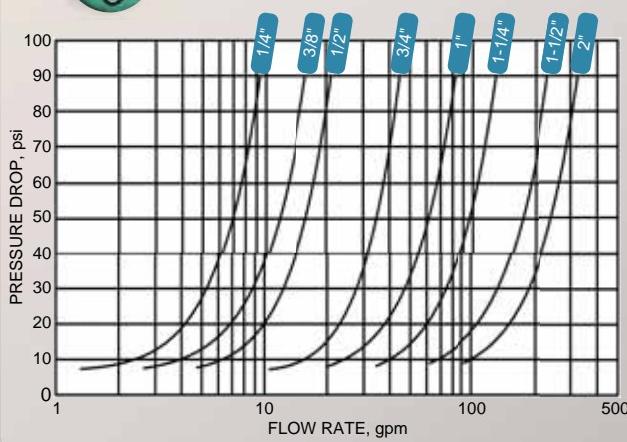


Rated Pressure

Size (inch)	Part No.	Thread NPTF	Dimensions		Rated Pressure	
			A	Hex	PSI	BAR
1/4	RA 04210 00	1/4-18	1.97	0.75	10,150	700
3/8	RA 04220 00	3/8-18	2.36	0.91	10,150	700
1/2	RA 04230 00	1/2-14	2.76	1.06	7,250	500
3/4	RA 04240 00	3/4-14	3.39	1.38	7,250	500
1	RA 04250 00	1-11½	3.94	1.62	7,250	500
1¼	RA 04260 00	1¼-11½	5.12	2.17	4,350	300
1½	RA 04270 00	1½-11½	5.31	2.56	4,350	300
2	RA 04290 00	2-11½	5.91	2.95	4,350	300



## Pressure Drop vs. Flow Rate



ONE-WAY

TWO-WAY

STRAIGHT-THRU

GAS

ACCESSORIES



## FITTINGS FLEX-AIR

**Materials**

- Integrated steel/polyurethane construction
- Steel balls
- Buna-N (Nitrile) seal
- Thread sealant standard on male NPTs



**The Flex-Air Fitting** is designed to rotate 360° at up to a 75° angle. The Flex-Air Fitting helps to alleviate Carpal Tunnel Syndrome and other stress related injuries in the workplace.

**FEATURES**

- Unique design provides free 360° rotation with up to a 75° flex angle in any direction
- Many styles and sizes available
- 145 psig (10 Bar) pressure rating (all models)

**BENEFITS**

- Provides flexibility of tool position to help alleviate CTS (Carpal Tunnel Syndrome) and back stress resulting in fewer lost-time injuries
- Minimizes paint damage
- Prevents kinking of air supply hose

**APPLICATIONS & INDUSTRIES**

- General Industry
- Pneumatic Tools

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# FLEX-AIR FITTINGS

ONE-WAY

TWO-WAY

STRAIGHT-THRU

GAS

ACCESSORIES

Female to Male



Part Number	FA25F-25M
Inside Dia.	0.2" (5 mm)
Connectors	1/4" NPT Female 1/4" NPT Male

Male to Male



Part Number	FA25M-25M
Inside Dia.	0.2" (5 mm)
Connectors	1/4" NPT Male 1/4" NPT Male

Industrial Plug to Male



Part Number	FA25P-25M
Inside Dia.	0.2" (5 mm)
Connectors	1/4" Industrial Interchange 1/4" NPT Male



Part Number	FA25F-37M
Inside Dia.	0.3" (7.5 mm)
Connectors	1/4" NPT Female 3/8" NPT Male



Part Number	FA37M-37M
Inside Dia.	0.3" (7.5 mm)
Connectors	3/8" NPT Male 3/8" NPT Male



Part Number	FA37P-25M
Inside Dia.	0.3" (7.5 mm)
Connectors	3/8" Industrial Interchange 1/4" NPT Male



Part Number	FA37F-37M
Inside Dia.	0.3" (7.5 mm)
Connectors	3/8" NPT Female 3/8" NPT Male

ARO to Male



Part Number	FA25AR-25M
Inside Dia.	0.2" (5 mm)
Connectors	ARO 210 Interchange 1/4" NPT Male

RL Plug to Male



Part Number	FA3RL-37M
Inside Dia.	0.3" (7.5 mm)
Connectors	3/8" RL Plug 3/8" NPT Male

Hose Barb to Male



Part Number	FA37H-37M
Inside Dia.	0.3" (7.5 mm)
Connectors	3/8" Barb 3/8" NPT Male

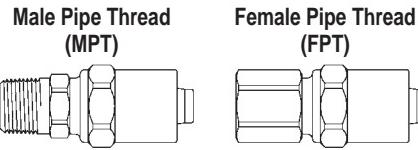
Lincoln to Male



Part Number	FA25LI-25M
Inside Dia.	0.2" (5 mm)
Connectors	Lincoln Interchange 1/4" NPT Male

# FITTINGS

## Hose Clamps (Brass) • Compression Type, Reusable



1/8-27 NPTF				
	Hose	Part No.		
	I.D.	O.D.	MPT	FPT
Series A	3/16"	7/16"	1A0	—
	3/16"	1/2"	1A3	—

3/8-18 NPTF				
	Hose	Part No.		
	I.D.	O.D.	MPT	FPT
Series B	1/4"	15/32"	4B1	—
	1/4"	1/2"	4B3	—

3/4-14 NPTF				
	Hose	Part No.		
	I.D.	O.D.	MPT	FPT
Series P	1/2"	13/16"	8P13	—
	1/2"	7/8"	8P15	—

1/4-18 NPTF				
	Hose	Part No.		
	I.D.	O.D.	MPT	FPT
Series A	3/16"	7/16"	2A0	—
	3/16"	1/2"	2A3	—

3/8-18 NPTF				
	Hose	Part No.		
	I.D.	O.D.	MPT	FPT
Series P	1/2"	13/16"	4P13	—
	1/2"	7/8"	4P15	—

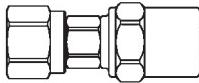
1-11½ NPTF				
	Hose	Part No.		
	I.D.	O.D.	MPT	FPT
Series R	3/4"	1 1/8"	10R23	—
	3/4"	1 1/16"	10R25	—
	3/4"	1 1/4"	10R27	—
	3/4"	1 1/4"	10R27	—

1/2-14 NPTF				
	Hose	Part No.		
	I.D.	O.D.	MPT	FPT
Series P	1/2"	13/16"	2P13	—
	1/2"	7/8"	2P15	—

1/2-14 NPTF				
	Hose	Part No.		
	I.D.	O.D.	MPT	FPT
Series R	3/4"	1 1/8"	6R23	—
	3/4"	1 1/16"	6R25	—
	3/4"	1 1/4"	6R27	—
	3/4"	1 1/4"	6R27	—

## Swivel Nut Hose Clamps (Brass) • Compression Type, Reusable

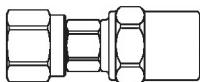
With Brass Male Swivel Insert – External Seat (inverted flare) for use with paint spray and oxygen fittings, etc. (Will accept 37° or 45° flare.)



9/16-18 Straight Thread			
	Hose	Part No.	
	I.D.	O.D.	
Series A	3/16"	7/16"	4LA0*
	3/16"	7/16"	4RA0

1/4-18 NPSM Straight Thread			
	Hose	Part No.	
	I.D.	O.D.	
Series B	1/4"	15/32"	5RB1
	1/4"	1/2"	4LB3*

With Steel Female Swivel Insert, 37° Female Flare, for use with flared tube fittings.



7/16-20 Straight Thread			
	Hose	Part No.	
	I.D.	O.D.	
Series B	1/4"	15/32"	720B1
	1/4"	1/2"	720B3
	1/4"	9/16"	720B5
	1/4"	5/8"	720B7

9/16-18 Straight Thread			
	Hose	Part No.	
	I.D.	O.D.	
Series C	5/16"	5/8"	5RC7
	5/16"	5/8"	5RD7

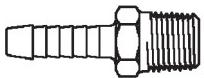
3/4-16 Straight Thread			
	Hose	Part No.	
	I.D.	O.D.	
Series D	3/8"	5/8"	4FD7
	3/8"	11/16"	4FD9
	3/8"	3/4"	4FD11
	3/8"	7/8"	4FD11

\* Left-hand thread for acetylene service



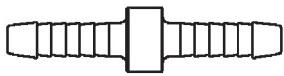
# FITTINGS

## Hose Stems

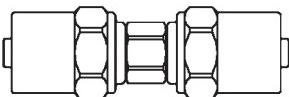


Hose Stem-to-Male Pipe Thread			
Hose I.D.	Thread NPTF	Part No.	
		Brass	Stainless
3/16"	1/8-27	SN16	LLS16
1/4"	1/8-27	SN17	-
3/8"	1/8-27	SN18	-
3/16"	1/4-18	S19	-
1/4"	1/4-18	S20	LLS20
5/16"	1/4-18	S205	-
3/8"	1/4-18	S21	-
1/2"	1/4-18	S22	-
1/4"	3/8-18	S23	-
3/8"	3/8-18	S24	LLS24
1/2"	3/8-18	S25	-
1/2"	1/2-14	S26	LLS26
3/4"	3/4-14	-	LLS30
1"	1-11½	-	LLS35

## Splicers (Brass)

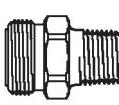
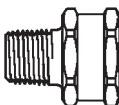


Hose Stem-to-Hose Stem		
Hose I.D.	Part No.	
3/16"	HS-30	
1/4"	HS-31	
5/16"	HS-32	
3/8"	HS-33	
1/2"	HS-34	



Hose Clamp-to-Hose Clamp		
Hose I.D.	Hose O.D.	Part No.
1/4"	15/32"	HSC-B1
1/4"	1/2"	HSC-B3
1/4"	5/8"	HSC-B7
5/16"	5/8"	HSC-C7
5/16"	11/16"	HSC-C9
3/8"	9/16"	HSC-D5
3/8"	5/8"	HSC-D7
3/8"	11/16"	HSC-D9
3/8"	3/4"	HSC-D11

## Unions (Brass)

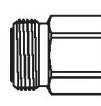
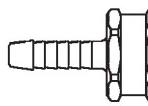


Part No.  
**H25MHU**

1/4" Male Pipe Thread Union half consists of H25HMU01 body and 902-8 o-ring.

Part No.  
**HHU25M**

1/4" Male Pipe Thread Union half

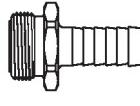
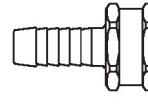


Part No.  
**H25HHU**

1/4" Hose Stem Union half consists of H25HHU01 stem, 902-8 o-ring and HUSN1 sleeve

Part No.  
**HHU25F**

1/4" Female Pipe Thread Union half



Part No.  
**H37HHU**

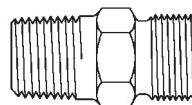
3/8" Hose Stem Union half consists of H37HHU01 stem, 902-8 o-ring and HUSN1 sleeve

Part No.  
**HHU37H**

3/8" Hose Stem Union half

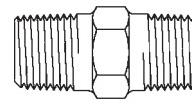
Any union half shown on the left can be used with any union half shown on the right.

## Adapters



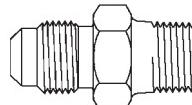
Oxygen Adapter (Brass)

Part No.	Thread Size
9-MBR	1/4-18 NPTF x 9/16-18 Right Hand



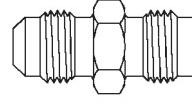
Pipe-to-Pipe Adapter (Brass)

Part No.	Thread Size
18-MAM	1/8-27 NPTF x 1/4-18 NPTF
19-MBM	1/4-18 NPTF x 1/4-18 NPTF
20-MBM	1/4-18 NPTF x 3/8-18 NPTF



Flare-to-Pipe Adapter (Stainless)

Part No.	Thread Size
A-402	7/16-20 (1/4" 45° Flare) x 1/4-18 NPTF



Flare-to-Flare Adapter (Stainless)

Part No.	Thread Size
A-394	7/16-20 (1/4" 45° Flare) Both Ends
A-375	5/8-18 (3/8" 45° Flare) Both Ends

All stainless steel fittings listed on this page are machined from Type 303 stainless steel bar stock.

ONE-WAY

TWO-WAY

STRAIGHT-THRU

GAS

ACCESSORIES

Select seals compatible with the service intended for the couplings. Allowance must be made for the kind of fluid to be conveyed and its temperature. Chemically active fluids will destroy some seal materials. Certain seals withstand high temperatures, whereas others cannot. Use this elastomer selection guide to find the appropriate seal. NOTE: Elastomer or seal material listed as "Standard" is furnished in most Tuthill couplings. Elastomers designated as "-118", "-146", "-192", etc., are available as optional seal material for some couplings. Other seal materials available upon request to suit requirements. Consult your local distributor.

**NOTE:** Service conditions may vary. The following information it is intended as a guide only and is not a guarantee.

## Seal Information

Dash No.	Compound
-***	Buna-N – 90 Durometer
-115	PTFE
-118	Neoprene
-143	Fluorocarbon
-146	Buna-N – 70 Durometer
-192*	EPDM
-235†	Kalrez
-236*	EPDM

\*\*\* No Dash Number required for standard seal material

\* "-192" and "-236" compounds are not compatible with mineral-based greases or oils

†Kalrez seals available by special quotation

FLUID	HANSEN ELASTOMER	FLUID	HANSEN ELASTOMER
Air (to 200° F)	Standard	Kerosene	-146
Air (above 200° F)	-143	Lindol	-192▼
Acetone	-192▼	L.P. Gases	Standard
Acetylene	Standard	Methane	-146
Alcohol, Ethyl	-192▼	Methanol	Standard
Alcohol, Methyl	Standard	Methyl Ethyl Ketone	-192▼
Alkalies	-192▼	Methyl Iso-Butyl Ketone	-192▼
Ammonia, Anhydrous	Standard	MIL-H-5606A	Standard
Ammonium Hydroxide	-192▼	Mineral Spirits	-146
Aroclor	-143	Natural Gas	Standard
Brake Fluid, Non-Petroleum Based	-192▼	Nitrogen	Standard
Butane	-146	Octane	-143
Carbon Dioxide	Standard	Oils, including: Animal, Mineral with Aniline Point above 160° F and Non-Food Service Vegetable OS45 & OS45-1	Standard
Carbon Tetrachloride	-143	Oxygen	-143
Cellulube	-192▼	Pentane	Service conditions dictate Elastomer Selection
Creosote	Standard	Perchloroethylene	-146
Diesel Fuel	-146	Propane	-143
Diester Lubricants	-143	Propylene	Standard
Ethane	-146	Pydraul	-143
Ethanol	-192▼	Steam (to 350° F)	-192▼
Ethylene Glycol	-192▼	Steam (above 350° F)	-236▼
Freon (most varieties)	-118	Stoddard Solvent	-146
Gasoline, Aromatic & Non-Aromatic	-143	Toluene	-143
Glycerin	Standard	Transmission Oil, Automotive	Standard
Helium	Standard	Trichloroethylene	-143
Heptane	-146	Turpentine	Standard
Hexane	-146	Versilube F-50	-192▼
Houghto-Safe Series 200, 600, 5000	Standard	Water (to 180° F)	Standard
Houghto-Safe Series 1000	-192▼	Water (above 180° F)	-192▼
Hydraulic Fluid, Petroleum-based with Aniline Point above 160° F	Standard		
Hydrolube	Standard		
Jet Fuel (to 250° F)	-146		
Jet Fuel (above 250° F)	-143		

▼ "-192" and "-236" compounds are not compatible with mineral-based greases or oils

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## TECHNICAL & WARRANTY INFORMATION

### **WARNING**

**About Industry Interchanges...It is possible to connect two different manufacturers' parts together so that they will effect a seal and work properly in a fluid system. Tuthill Coupling Group cannot guarantee the quality, workmanship, dimensions, or tolerances of the other manufacturers' parts, even though they might be interchangeable. Therefore, whenever mixing parts, the final assembly must always be tested before being put into service. Failure to test could result in a sudden failure of the coupling causing severe personal injury or death.**

## Pressure Ratings\*\*

Since application conditions vary so widely, the pressures listed are intended as a guide only and not a guarantee of performance. Pressure peaks and extreme surge flows may cause a coupling to become inoperative.

### **\*\*NOTE!**

Pressure ratings listed were determined by testing threaded sockets and plugs. Sockets and plugs with hose stem and hose clamp end connections are designed and recommended for use with shop air line pressure only (150 psig maximum) when used with the appropriate style hose.

### **WARNING**

Over-pressurization could result in a sudden failure of the coupling causing severe bodily injury or death. Be sure to select the proper coupling for your application and use it only within the specified service pressure range.

### **WARNING**

Couplings do wear out. In order to avoid severe bodily injury or death, couplings must be routinely checked for condition and replaced if necessary.

## Warranty

Every effort has been made to have all photographs and drawings accurately represent the products as they actually were at the time this catalog was printed. However, in order to effectively continue to meet the requirements of our users, changes in some items may have been made during the life of this catalog—which may be made without notice.

All Tuthill Coupling Group products are guaranteed to be free of defects in material and workmanship for a period of 90 days from the date of shipment to a customer. Any claimed defect must be reported to the Tuthill Coupling Group in writing within the warranty period. This warranty is limited to replacing or repairing, at the Company's option, f.o.b. the Company's factory, any part which upon Company inspection is found to be defective. Components purchased by the Company from others are warranted only to the extent of the guarantee or warranty, if any, made to the Company.

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Our quick couplings are available in over 6,000 configurations. They are available in brass, steel, stainless steel, plastic, and in a wide range of sizes. We provide quick couplings to meet the needs of every industry.

**Tuthill Coupling Group**, comprised of the Hansen™, Coupleurs Gromelle™ and QUICK SEAL® brands, manufactures a comprehensive range of quick coupling and quick testing solutions at its Berea, Ohio and Annemasse, France locations. Tuthill's precision products are widely marketed through a strong network of global distributorships.



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